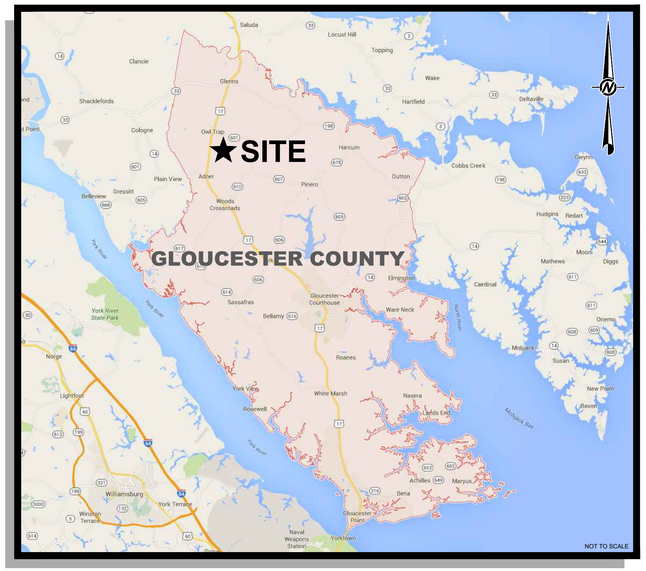
WASTE MANAGEMENT

MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY

MAJOR PERMIT AMENDMENT

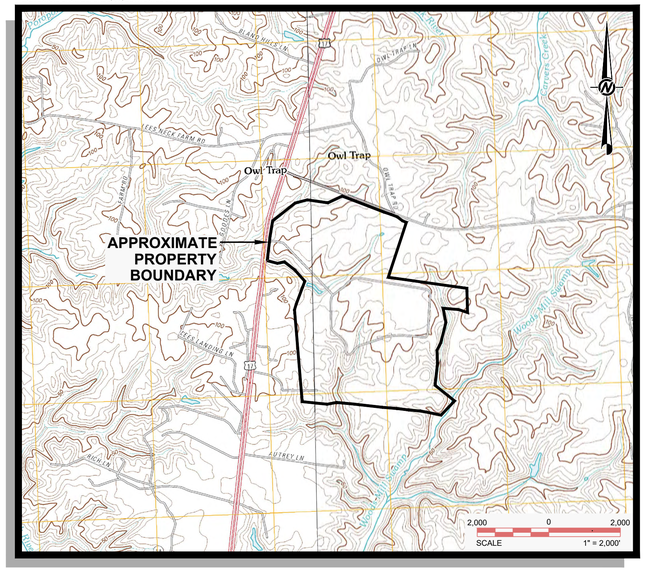
PERMIT No. 572

REVISED AUGUST 2021



VICINITY MAP

MAP SOURCE
BASE MAP CONSISTS OF 7.5-MINUTE USGS TOPOGRAPHIC QUADRANGLES NAMED SALUDA AND SHACKLEFORDS, VA, BOTH DATED 2011



SITE LOCATION MAP

DRAWING INDEX

DWG. No.	DRAWING TITLE
~~0~~	~~GENERAL NOTES~~
1	EXISTING CONDITIONS (AS OF DECEMBER 6, 1992) (1 of 2)
2	EXISTING CONDITIONS (AS OF DECEMBER 6, 1992) (2 of 2)
1A	△3 EXISTING CONDITIONS (AS OF DECEMBER 29, 2020) (1 of 2)
2A	△3 EXISTING CONDITIONS (AS OF DECEMBER 29, 2020) (2 of 2)
3	SITE LAYOUT AND EROSION & SEDIMENT CONTROL PLAN (1 of 2)
4	SITE LAYOUT AND EROSION & SEDIMENT CONTROL PLAN (2 of 2)
5	△3 SITE MONITORING PLAN (1 of 2)
6	△3 SITE MONITORING PLAN (2 of 2)
7	BASE GRADE PLAN AREA A (EX. CELLS 1-11)
8	△3 BASE GRADE PLAN AREA A (FUTURE CELLS 12-19)
9	△3 BASE GRADE PLAN AREA B (FUTURE CELLS 20-26)
10	TOP OF PROTECTIVE COVER PLAN AREA A (EX. CELLS 1-11)
11	△3 TOP OF PROTECTIVE COVER PLAN AREA A (FUTURE CELLS 12-19)
12	△3 TOP OF PROTECTIVE COVER PLAN AREA B (FUTURE CELLS 20-26)
13	PHASE 1 FILL PLAN
14	PHASE 2 FILL PLAN
15	PHASE 3 FILL PLAN
16	△3 CELLS 12-13 CONSTRUCTION PLAN (PHASE 4 FILL PLAN)
17	△3 CELLS 14-15 CONSTRUCTION PLAN (PHASE 5 FILL PLAN)
18	△3 CELLS 16-17 CONSTRUCTION PLAN (PHASE 6 FILL PLAN)
19	△3 CELLS 18-19 CONSTRUCTION PLAN (PHASE 7 FILL PLAN)
20	△3 FINAL GRADING PLAN AREA A (1 of 2) (PHASE 8 FILL PLAN)
21	△3 FINAL GRADING PLAN AREA A (2 of 2) (PHASE 8 FILL PLAN)
22	△3 CELLS 20-21 CONSTRUCTION PLAN
22A	△3 CELLS 22-23 CONSTRUCTION PLAN (PHASE 9 FILL PLAN)
23	△3 CELLS 24-26 CONSTRUCTION PLAN (PHASE 10 FILL PLAN)
24	△3 FINAL GRADING PLAN AREA B (PHASE 11 FILL PLAN)
25	△3 CROSS SECTIONS (1-1 THROUGH 5-5)
26	△3 CROSS SECTIONS (6-6 THROUGH 8-8)
27	△3 CROSS SECTIONS (9-9 THROUGH 11-11)
28	△3 CROSS SECTIONS (12-12 THROUGH 14-14)
29	△3 CROSS SECTIONS (15-15 THROUGH 16-16)
30	LEACHATE SUMP PLAN (EX. CELLS 1-11)
30A	LEACHATE SUMP PLAN (FUTURE CELLS 12-26)
30B	SUMP HOUSE DETAILS
31	LEACHATE COLLECTION SYSTEM DETAILS (EX. CELLS 1-11)
31A	LEACHATE COLLECTION SYSTEM DETAILS (FUTURE CELLS 12-26)
32	△3 SEDIMENTATION BASIN No. 3 PLAN AND DETAILS
33	△3 SEDIMENTATION BASIN No. 5 PLAN AND DETAILS
34	△3 SEDIMENTATION BASIN No. 10 PLAN AND DETAILS
35	△3 SEDIMENTATION BASINS No. 11, 12 & 13 PLANS AND DETAILS
36	△3 SEDIMENTATION BASIN DETAILS (1 of 2)
36A	SEDIMENTATION BASIN DETAILS (2 of 2)
37	LINER SYSTEM DETAILS (EX. CELLS 1-11) (1 of 2)
38	LINER SYSTEM DETAILS (EX. CELLS 1-11) (2 of 2)
38A	LINER SYSTEM DETAILS (FUTURE CELLS 12-26)
39	FINAL COVER SYSTEM DETAILS (EXISTING CAP)
39A	FINAL COVER SYSTEM DETAILS (FUTURE CAP) (1 of 2)
39B	FINAL COVER SYSTEM DETAILS (FUTURE CAP) (2 of 2)
40	EROSION AND SEDIMENTATION CONTROL DETAILS
~~41~~	~~EROSION AND SEDIMENTATION CONTROL DETAILS~~
42	STORMWATER CHANNEL AND CULVERT DETAILS AND SCHEDULES
43	DOWNCHUTE DETAILS
43A	SLOPE DRAIN DETAILS (1 of 3)
43B	SLOPE DRAIN DETAILS (2 of 3)
43C	SLOPE DRAIN DETAILS (3 of 3)
44	DROP INLET DETAILS AND SCHEDULE
~~45~~	~~ACCESS ROAD CULVERT DESIGN AND WETLAND CROSSING~~
~~46~~	~~SITE INFRASTRUCTURE PLAN VIEW~~
~~47~~	~~PERMANENT MAINTENANCE FACILITY LAYOUT~~
~~48~~	~~MAINTENANCE FACILITY ELEVATION VIEWS~~
~~49~~	~~SCALE HOUSE ELEVATION VIEWS AND LAYOUT~~
~~50~~	~~SITE OFFICE LAYOUT AND ELEVATION VIEWS~~
~~51~~	~~LEACHATE TRUCK LOADING / UNLOADING PUMP STATION DETAILS~~
~~52~~	~~FLOW SCHEMATIC LEACHATE TANK STORAGE AREA~~
53	LEACHATE FORCEMAIN PROFILE AREA A
54	LEACHATE FORCEMAIN PROFILE AREA B
55	GAS MANAGEMENT PLAN - AREA A
56	GAS MANAGEMENT PLAN - AREA B
57	GAS MANAGEMENT DETAILS (1 of 2)
58	GAS MANAGEMENT DETAILS (2 of 2)
~~59~~	~~GAS HEADER LAYOUT AREA A~~
~~60~~	~~GAS HEADER LAYOUT AREA B~~
~~61~~	~~GAS DETAILS (1 of 5)~~
~~62~~	~~GAS DETAILS (2 of 5)~~
~~63~~	~~GAS DETAILS (3 of 5)~~
~~64~~	~~GAS DETAILS (4 of 5)~~
~~65~~	~~GAS DETAILS (5 of 5)~~

GENERAL NOTES

1. THIS PART B PERMIT APPLICATION FOR THE MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY, ORIGINALLY SUBMITTED DECEMBER 1993 BY RUST ENVIRONMENTAL & INFRASTRUCTURE (RUST) HAS BEEN REVISED BY GOLDER ASSOCIATES INC. (GOLDER) FOR CHANGES RELATED TO THE BASE LINER AND FINAL COVER SYSTEMS. ADDITIONAL UPDATING OF OLDER DETAILS AND THE PROVISION OF NEW DETAILS RELATED TO CURRENT PRACTICES ARE ALSO PROVIDED HEREIN.
2. DRAWINGS REVISED BY GOLDER ARE SHOWN IN BLACK IN THE DRAWING INDEX. NEW DRAWINGS ADDED BY GOLDER ARE NUMBERED WITH AN "A" OR "B" SUFFIX. ALL DRAWINGS REVISED OR ADDED BY GOLDER HAVE BEEN PREPARED UNDER THE SUPERVISION OF THE ENGINEER-OF-RECORD.
3. ORIGINAL DRAWINGS FROM THE PERMIT APPLICATION SUBMITTED BY RUST THAT REMAIN UNCHANGED ARE SHOWN IN GRAY IN THE DRAWING INDEX. THESE DRAWINGS HAVE BEEN INCLUDED FOR REFERENCE ONLY.
4. ORIGINAL DRAWINGS FROM THE PERMIT APPLICATION SUBMITTED BY RUST THAT HAVE BEEN DELETED FROM THIS REVISED DRAWING SET HAVE BEEN STRUCK-OUT IN THE DRAWING INDEX.

PREPARED BY:

GOLDER
MEMBER OF WSP

PREPARED FOR:

WASTE MANAGEMENT

CONTACT INFORMATION

ENGINEER:
GOLDER ASSOCIATES INC.
MAIN CONTACT: RON DiFRANCESCO, JR., P.E.
PHONE: (804) 358-7900
EMAIL: RDiFRANCESCO@GOLDER.COM

OWNER / DEVELOPER:
WASTE MANAGEMENT
MAIN CONTACT: MICHAEL EASTER
PHONE: (804) 664-3859
EMAIL: MEASTER1@WM.COM

GOLDER
MEMBER OF WSP

REV	DATE	DES						
△1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD	JRD	RVW
△	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD	CHK	

REVISION DESCRIPTION

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022520
08/31/2021
PROFESSIONAL ENGINEER

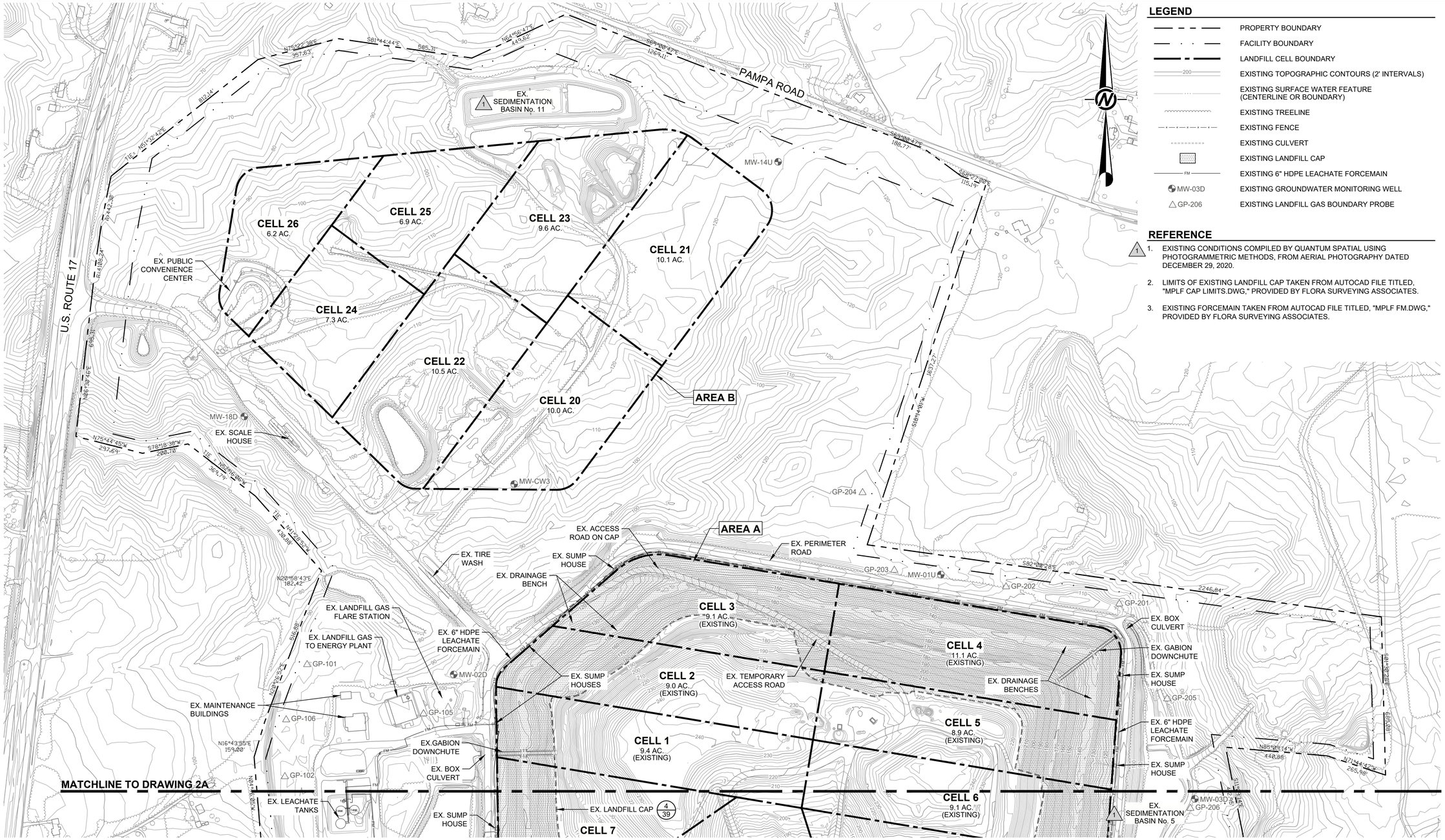
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
COVER SHEET

PROJECT No.		15-39843
FILE No.		1539843A_00
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

COVER

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_00.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING CULVERT
- EXISTING LANDFILL CAP
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- MW-03D EXISTING GROUNDWATER MONITORING WELL
- GP-206 EXISTING LANDFILL GAS BOUNDARY PROBE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
2. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
3. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

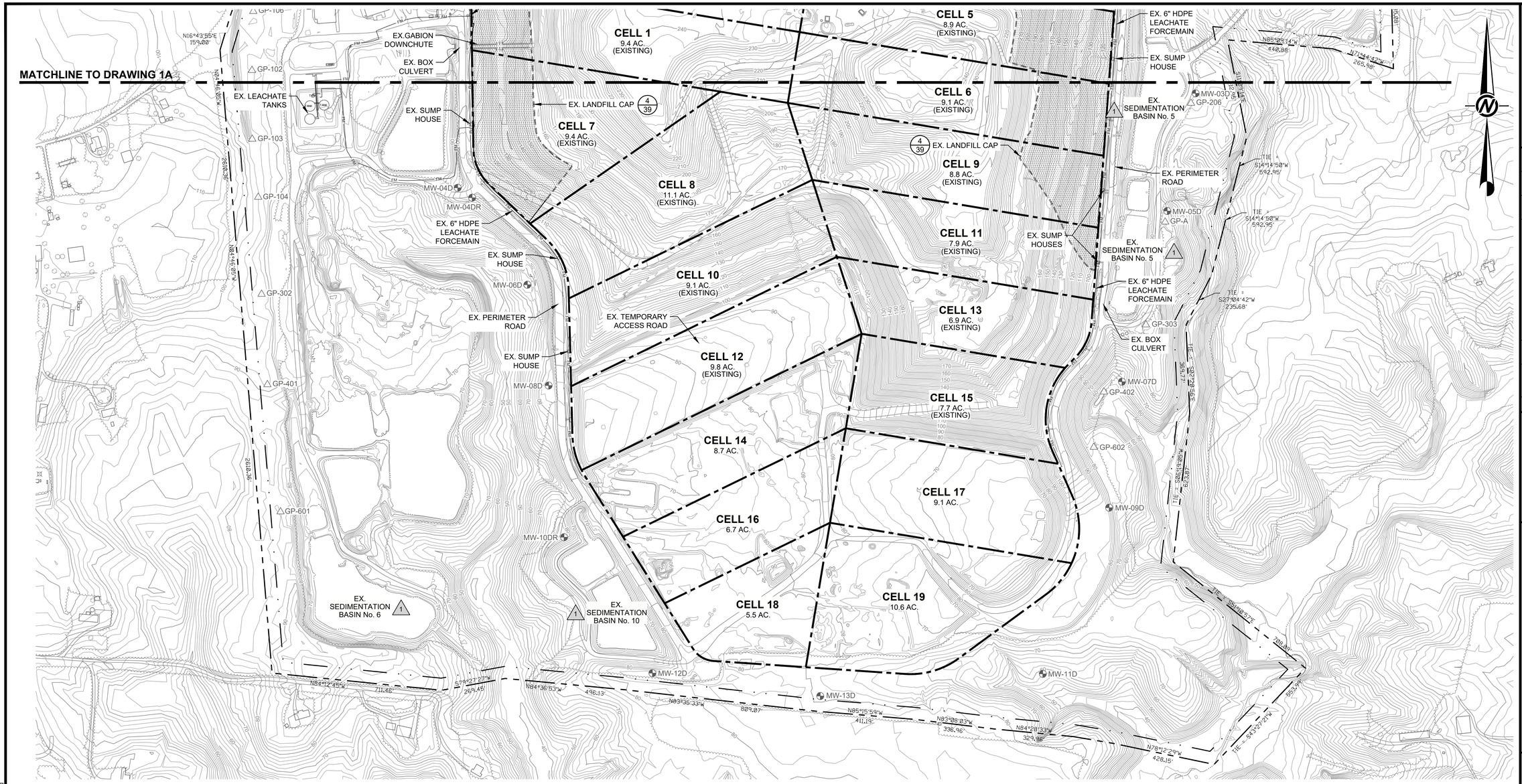
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
EXISTING CONDITIONS
(AS OF DECEMBER 29, 2020)
(1 of 2)

PROJECT No.		15-39843
FILE No.		1539843A_01A-02A
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 1A

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_01A-02A.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- 200 — EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING CULVERT
- EXISTING LANDFILL CAP
- FM — EXISTING 6" HDPE LEACHATE FORCEMAIN
- MW-03D — EXISTING GROUNDWATER MONITORING WELL
- GP-206 — EXISTING LANDFILL GAS BOUNDARY PROBE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
2. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
3. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.

200 0 200 400
SCALE FEET

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_01A-02A.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	SIB	CADD	CHK	SDRM	JRD	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS						

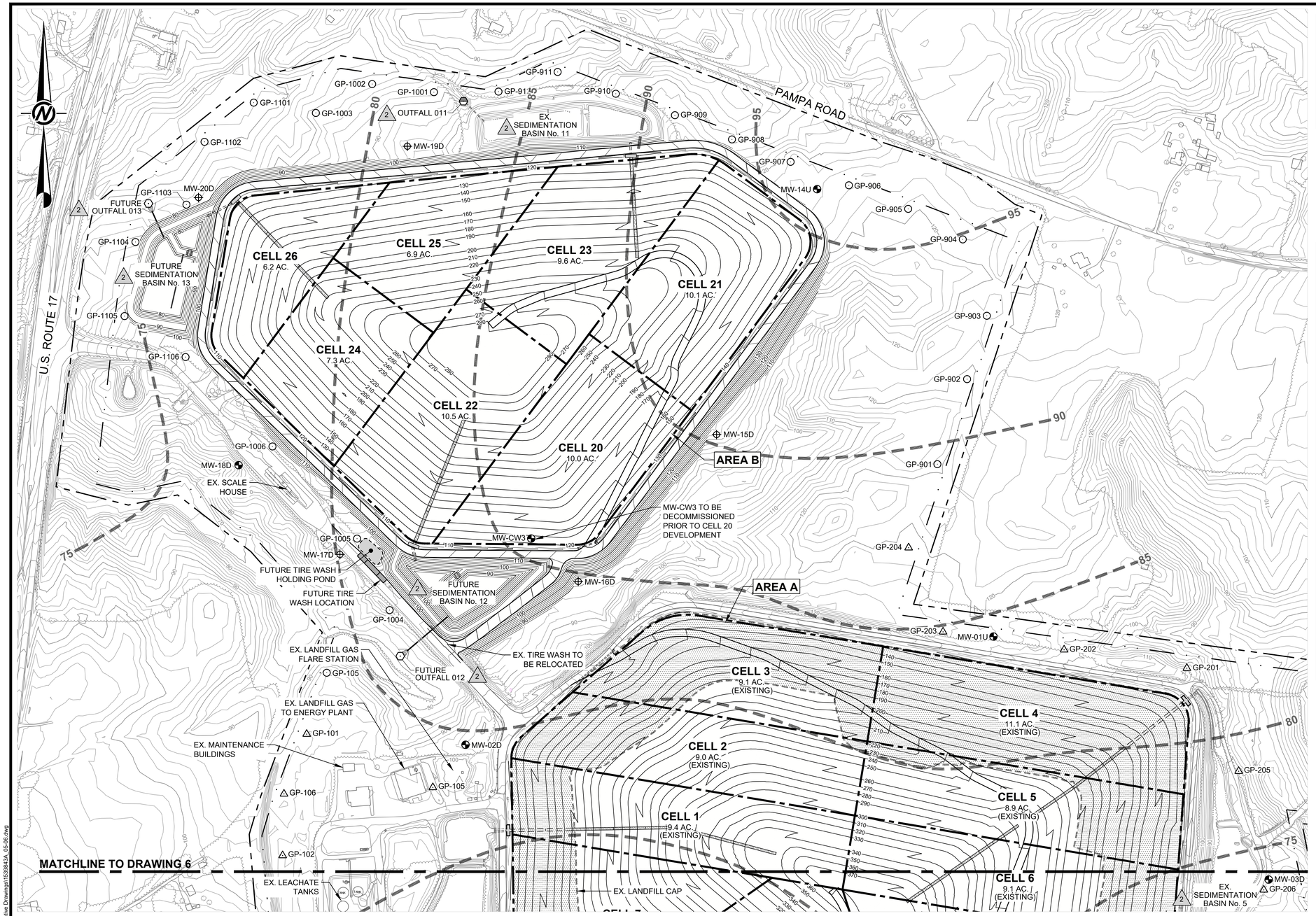
COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCUCCI
Lic. No. 022360
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
EXISTING CONDITIONS
(AS OF DECEMBER 29, 2020)
(2 of 2)

PROJECT No.		15-39843
FILE No.		1539843A_01A-02A
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 2A



FUTURE GROUNDWATER MONITORING WELL INSTALLATION SCHEDULE

MONITORING WELL ID	CORRESPONDING WASTE CELL(S)
MW-16D MW-17D DECOMMISSION MW-CW3	CELL 20
MW-15D	CELL 21
MW-19D	CELL 23
MW-20D	CELL 24, 25, or 26

FUTURE GROUNDWATER MONITORING WELL INSTALLATION NOTES:

1. FUTURE GROUNDWATER MONITORING WELLS SHALL BE ADDED TO THE COMPLIANCE NETWORK UPON CONSTRUCTION OF THE CORRESPONDING CELL(S).
2. INSTALLATION SCHEDULE TAKEN FROM "GROUNDWATER MONITORING AND REPORTING PLAN (REV. 1.0)," BY GOLDER ASSOCIATES, DATED SEPTEMBER 2013.

FUTURE LANDFILL GAS BOUNDARY PROBE INSTALLATION SCHEDULE (2)

GAS PROBE ID	CORRESPONDING WASTE CELL(S)
GP-603 GP-811	CELL 17
GP-801 GP-802 GP-803	CELL 18
GP-804 GP-805 GP-806 GP-807 GP-808 GP-809 GP-810	CELL 19
GP-901 GP-1004	CELL 20
GP-902 GP-903 GP-904 GP-905 GP-906 GP-907 GP-908	CELL 21
GP-1005 GP-1006	CELL 22
GP-909 GP-910	CELL 23
GP-911 GP-912 GP-1001	CELL 25
GP-1002 GP-1003 GP-1101 GP-1102 GP-1103 GP-1104 GP-1105 GP-1106	CELL 26

FUTURE LANDFILL GAS BOUNDARY PROBE INSTALLATION NOTES:

1. FUTURE LANDFILL GAS BOUNDARY PROBES SHALL BE ADDED TO THE COMPLIANCE NETWORK UPON CONSTRUCTION OF THE CORRESPONDING CELL(S).

LEGEND

PROPERTY BOUNDARY	
FACILITY BOUNDARY	
LANDFILL CELL BOUNDARY	
200	EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
200	PROPOSED TOPOGRAPHIC CONTOURS
	EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
	EXISTING TREELINE
	EXISTING FENCE
	EXISTING CULVERT
	EXISTING LANDFILL CAP
MW-03D	EXISTING GROUNDWATER MONITORING WELL
GP-206	EXISTING LANDFILL GAS BOUNDARY PROBE
MW-15D	FUTURE GROUNDWATER MONITORING WELL
GP-902	FUTURE LANDFILL GAS BOUNDARY PROBE
OUTFALL 005	EXISTING STORMWATER OUTFALL
OUTFALL 012	FUTURE STORMWATER OUTFALL
80	GROUNDWATER SURFACE CONTOUR (FEET ABOVE MEAN SEAL LEVEL)

REFERENCE

(2) 1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.

3. PROPOSED CONTOURS SHOWN REPRESENT FINAL CONDITION OF THE FACILITY.

(2) 4. GROUNDWATER CONTOURS SHOWN BASED ON WATER LEVEL MEASUREMENTS TAKEN ON JANUARY 11, 2021.

200 0 200 400
SCALE FEET

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

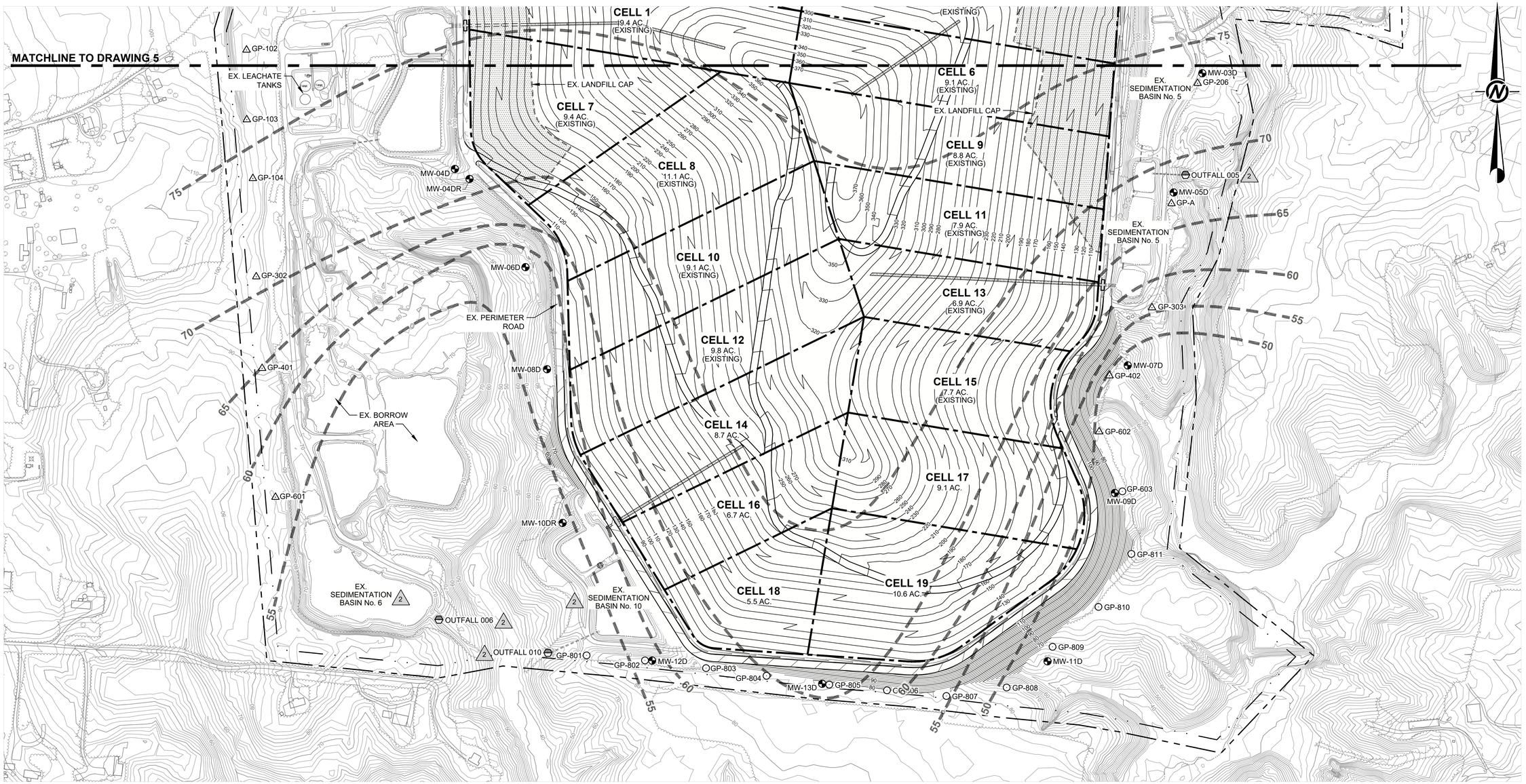
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SITE MONITORING PLAN
(1 of 2)

PROJECT No.		15-39843
FILE No.		1539843A_05-06
REV. 2	SCALE	AS SHOWN
DESIGN	MGW	09/23/16
CADD	BPG	09/23/16
CHECK	MGW	09/23/16
REVIEW	JRD	09/23/16

DRAWING 5

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_05-06.dwg



LEGEND

	PROPERTY BOUNDARY	MW-03D	EXISTING GROUNDWATER MONITORING WELL
	FACILITY BOUNDARY	GP-206	EXISTING LANDFILL GAS BOUNDARY PROBE
	LANDFILL CELL BOUNDARY	MW-15D	FUTURE GROUNDWATER MONITORING WELL
200	EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)	GP-902	FUTURE LANDFILL GAS BOUNDARY PROBE
200	PROPOSED TOPOGRAPHIC CONTOURS	OUTFALL 005	EXISTING STORMWATER OUTFALL
	EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)	OUTFALL 012	FUTURE STORMWATER OUTFALL
	EXISTING TREELINE	80	GROUNDWATER SURFACE CONTOUR (FEET ABOVE MEAN SEAL LEVEL)
	EXISTING FENCE		
	EXISTING CULVERT		
	EXISTING LANDFILL CAP		

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.

3. PROPOSED CONTOURS SHOWN REPRESENT FINAL CONDITION OF THE FACILITY.

2 4. GROUNDWATER CONTOURS SHOWN BASED ON WATER LEVEL MEASUREMENTS TAKEN ON JANUARY 11, 2021.

200 0 200 400
SCALE FEET

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	09/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCESCO
Lic. No. 025260
09/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SITE MONITORING PLAN
(2 of 2)

PROJECT No.		15-39843
FILE No.		1539843A_05-06
REV. 2	SCALE	AS SHOWN
DESIGN	MGW	09/23/16
CADD	BPG	09/23/16
CHECK	MGW	09/23/16
REVIEW	JRD	09/23/16

DRAWING 6

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_05-06.dwg

MATCHLINE TO DRAWING 7

CELL 11
7.9 AC.
(EXISTING)

CELL 10
9.1 AC.
(EXISTING)

CELL 13
6.9 AC.
(EXISTING)

CELL 12
9.8 AC.
(EXISTING)

CELL 15
7.7 AC.
(EXISTING)

CELL 14
8.7 AC.

CELL 17
9.1 AC.

CELL 16
6.7 AC.

CELL 18
5.5 AC.

CELL 19
10.6 AC.

EX. SEDIMENTATION BASIN No. 5

EX. SEDIMENTATION BASIN No. 6

EX. SEDIMENTATION BASIN No. 10

INTERCELL BERM (TYP.) 3/38A

BASE LINER SYSTEM (TYP.) 2/38A

BASE LINER SYSTEM ANCHOR TRENCH 5/38A

PERIMETER BERM AND ACCESS ROAD (TYP.) 1/38A

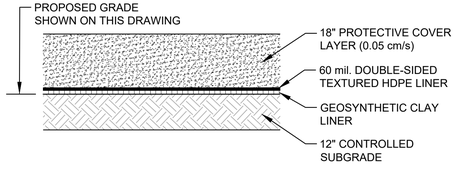
3.08%

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING BASE GRADE CONTOURS (2' INTERVALS)
- PROPOSED BASE GRADE CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- EXISTING CULVERT
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- SLOPE ARROW
- CROSS SECTION LOCATION AND DRAWING REFERENCE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
2. EXISTING BASE GRADES SHOWN FOR CELLS 10 & 11 ARE BASED ON ORIGINAL PERMIT DRAWINGS BY RUST ENVIRONMENT & INFRASTRUCTURE AND ARE TO BE CONSIDERED APPROXIMATE. EXISTING BASE GRADES FOR CELLS 12, 13 & 15 ARE BASED ON PERMIT AMENDMENT DRAWINGS BY GOLDER DATED SEPTEMBER 23, 2016.
3. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.



BASE LINER SYSTEM DETAIL

NOT TO SCALE

SCALE 120 0 120 240 FEET

GOLDER
MEMBER OF WSP

REV	DATE	DES						
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	CADD	SDRM	CHK	RVW

REVISION DESCRIPTION

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
BASE GRADE PLAN
AREA A
(FUTURE CELLS 12-19)

PROJECT No.		15-39843
FILE No.		15398 43A_07-09
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 8

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\15398 43A_07-09.dwg

PAMPA ROAD

U.S. ROUTE 17

EX. SEDIMENTATION BASIN No. 11

PERIMETER BERM AND ACCESS ROAD (TYP.)

BASE LINER SYSTEM ANCHOR TRENCH

INTERCELL BERM (TYP.)

FOREBAY

PROP. SEDIMENTATION BASIN No. 13 (SEE DRAWING 35)

CELL 26
6.2 AC.

CELL 25
6.9 AC.

CELL 23
9.6 AC.

CELL 21
10.1 AC.

CELL 24
7.3 AC.

CELL 22
10.5 AC.

CELL 20
10.0 AC.

BASE LINER SYSTEM (TYP.)

3.08%

EX. SCALE HOUSE

FUTURE TIRE WASH HOLDING POND

FUTURE TIRE WASH LOCATION

PROP. SEDIMENTATION BASIN No. 12 (SEE DRAWING 35)

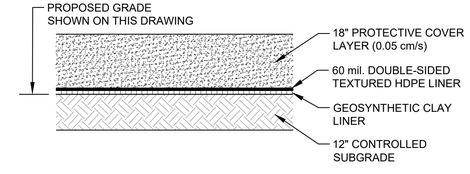
EX. TIRE WASH TO BE RELOCATED

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- 200 — EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- 200 — PROPOSED BASE GRADE CONTOURS (2' INTERVALS)
- FM — PROPOSED 6" HDPE LEACHATE FORCEMAIN
- 3.08% — SLOPE ARROW
- 15/29 — CROSS SECTION LOCATION AND DRAWING REFERENCE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.



BASE LINER SYSTEM DETAIL

NOT TO SCALE

120 0 120 240
SCALE FEET

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_07-09.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCUCCI
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
BASE GRADE PLAN
AREA B
(FUTURE CELLS 20-26)

PROJECT No.		15-39843
FILE No.		1539843A_07-09
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 9

MATCHLINE TO DRAWING 10

EX. SUMP HOUSE

EX. 6" HDPE LEACHATE FORCEMAIN

EX. SUMP HOUSE

CELL 10
9.1 AC.
(EXISTING)

CELL 11
7.9 AC.
(EXISTING)

EX. SEDIMENTATION BASIN No. 5 (1)

EX. SUMP HOUSE

CELL 12
9.8 AC.
(EXISTING)

CELL 13
6.9 AC.
(EXISTING)

CELL 15
7.7 AC.
(EXISTING)

5/31A 8" DIA. LEACHATE COLLECTION PIPES

CELL 14
8.7 AC.

3.08%

BASE LINER SYSTEM (TYP.) 2/38A

5/31A 8" DIA. LEACHATE COLLECTION PIPE

PROPOSED 6" HDPE LEACHATE FORCEMAIN (SEE DRAWING 53 FOR PROFILE)

1/30B SUMP HOUSE

LEACHATE COLLECTION SUMPS 2/30A

CELL 16
6.7 AC.

2/30A LEACHATE COLLECTION SUMPS

8" DIA. LEACHATE COLLECTION PIPES 5/31A

CELL 17
9.1 AC.

SUMP HOUSE 1/30B

PROPOSED 6" HDPE LEACHATE FORCEMAIN (SEE DRAWING 53 FOR PROFILE)

BASE LINER SYSTEM (TYP.) 2/38A

MIN. 0.5% SLOPE ON PIPE (TYP.)

5/31A 8" DIA. LEACHATE COLLECTION PIPES

SUMP HOUSE 1/30B

CELL 18
5.5 AC.

CELL 19
10.6 AC.

8" DIA. LEACHATE COLLECTION PIPE CLEANOUT 1/31A

EX. SEDIMENTATION BASIN No. 6 (1)

EX. SEDIMENTATION BASIN No. 10 (1)

8" DIA. LEACHATE COLLECTION PIPES 5/31A

1/30B SUMP HOUSE

2/30A LEACHATE COLLECTION SUMP

SUMP HOUSE 1/30B

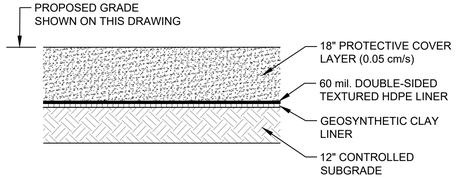
LEACHATE COLLECTION SUMP 2/30A

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- 200 — EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- 200 — EXISTING TOP OF PROTECTIVE COVER CONTOURS (2' INTERVALS)
- 200 — PROPOSED TOP OF PROTECTIVE COVER CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- EXISTING CULVERT
- FM — EXISTING 6" HDPE LEACHATE FORCEMAIN
- FM — PROPOSED 6" HDPE LEACHATE FORCEMAIN
- PROPOSED LEACHATE COLLECTION PIPE
- PROPOSED LEACHATE COLLECTION PIPE CLEANOUT
- 3.08% — SLOPE ARROW

REFERENCE

1. (1) EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
2. (1) EXISTING TOP OF PROTECTIVE COVER GRADES SHOWN FOR CELLS 10 & 11 ARE BASED ON ORIGINAL PERMIT DRAWINGS BY RUST ENVIRONMENT & INFRASTRUCTURE AND ARE TO BE CONSIDERED APPROXIMATE. EXISTING TOP OF PROTECTIVE COVER GRADES FOR CELLS 12, 13 & 15 ARE BASED ON PERMIT AMENDMENT DRAWINGS BY GOLDER DATED SEPTEMBER 23, 2016.
3. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.



BASE LINER SYSTEM DETAIL

NOT TO SCALE

120 0 120 240
SCALE FEET

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_10-12.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

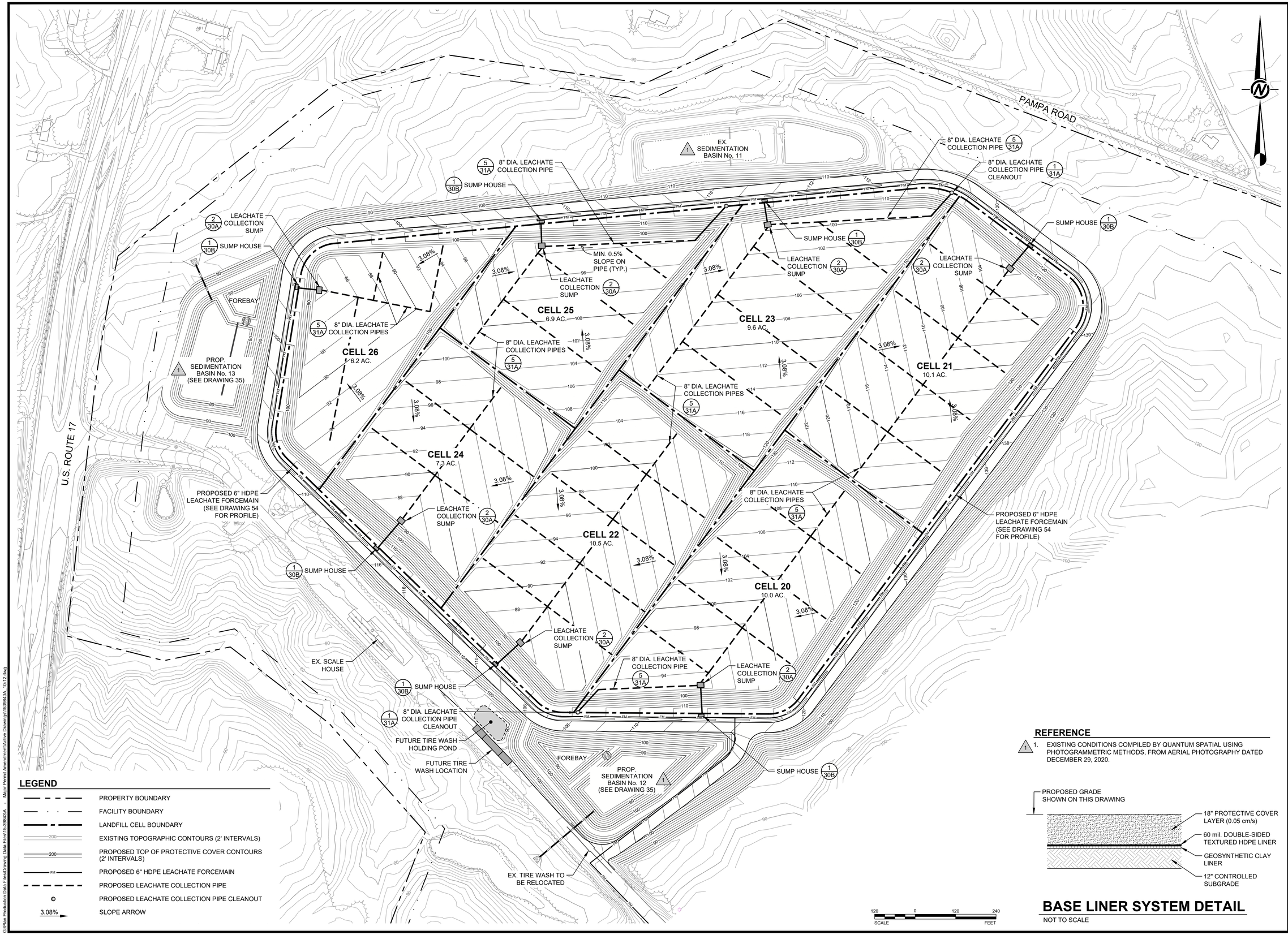
COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCUSCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
TOP OF PROTECTIVE COVER PLAN AREA A (FUTURE CELLS 12-19)

PROJECT No.		15-39843
FILE No.		1539843A_10-12
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 11



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOP OF PROTECTIVE COVER CONTOURS (2' INTERVALS)
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- PROPOSED LEACHATE COLLECTION PIPE
- PROPOSED LEACHATE COLLECTION PIPE CLEANOUT
- 3.08% SLOPE ARROW

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

BASE LINER SYSTEM DETAIL

NOT TO SCALE

GOLDER MEMBER OF WSP

REV	DATE	DES	RENUMBERED SEDIMENTATION BASINS	CADD	CHK	RVW
1	08/31/21	JRD	REVISION DESCRIPTION	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA — JAMES R. DIPASCUCCI, Lic. No. 022560 — 08/31/2021 — PROFESSIONAL ENGINEER

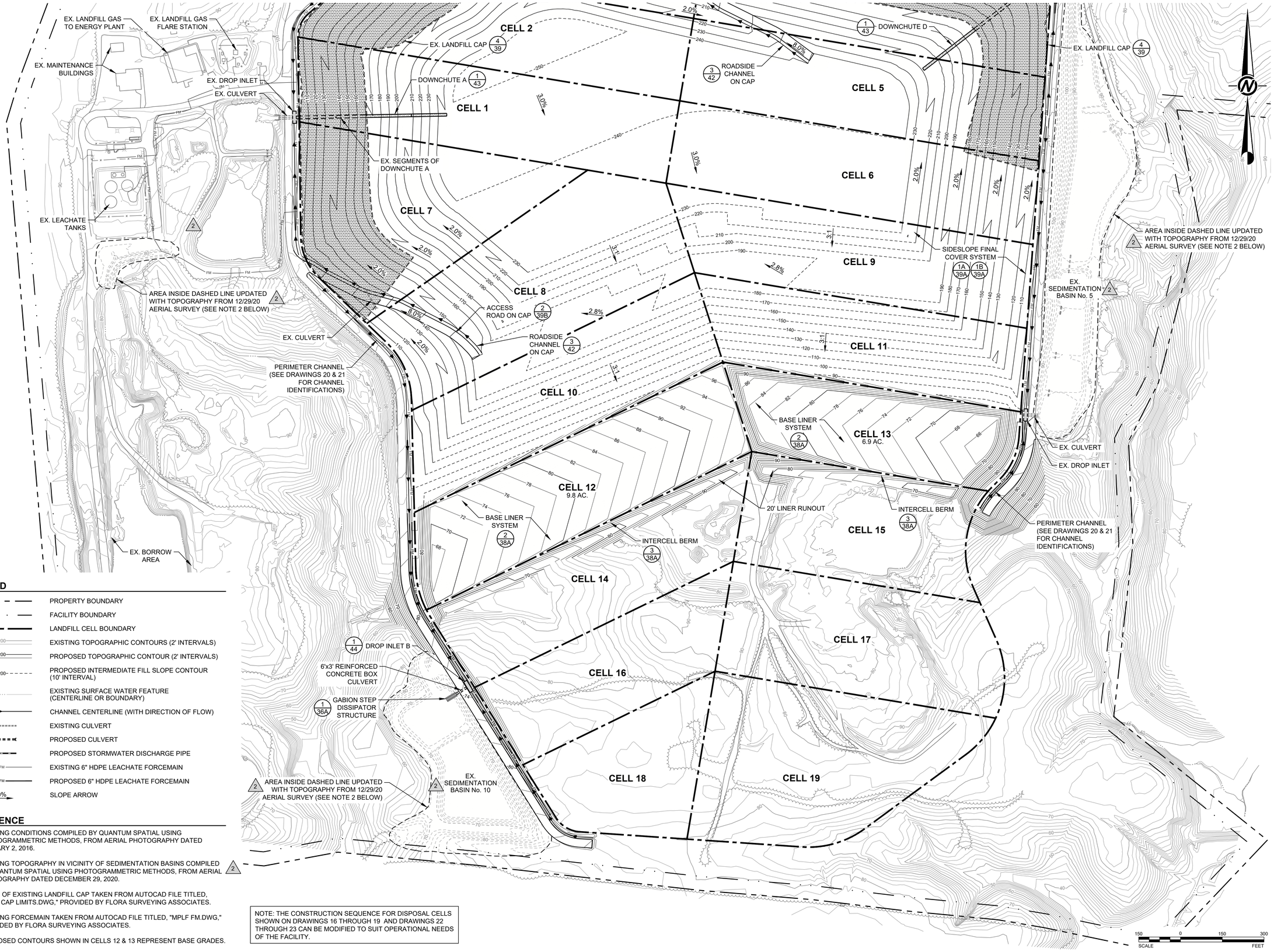
PROJECT: WASTE MANAGEMENT MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY PERMIT No. 572 GLOUCESTER COUNTY, VIRGINIA

TITLE: TOP OF PROTECTIVE COVER PLAN AREA B (FUTURE CELLS 20-26)

PROJECT No.		15-39843
FILE No.		1539843A_10-12
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 12

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_10-12.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOUR (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- SLOPE ARROW

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED JANUARY 2, 2016.
2. EXISTING TOPOGRAPHY IN VICINITY OF SEDIMENTATION BASINS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
3. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
4. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
5. PROPOSED CONTOURS SHOWN IN CELLS 12 & 13 REPRESENT BASE GRADES.

NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

SCALE 150 0 150 300 FEET

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_16.dwg

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

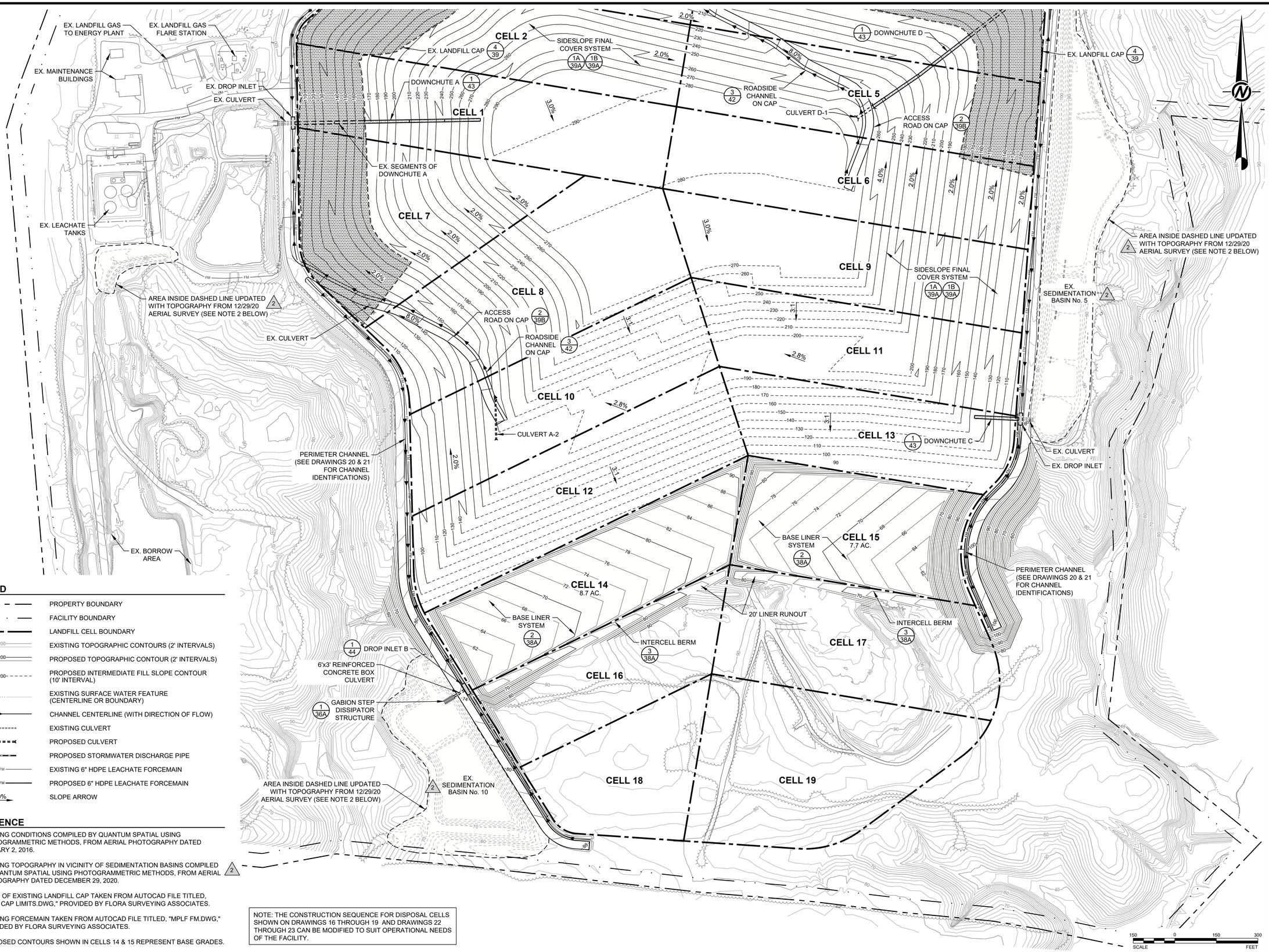
COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCUSCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 12-13
CONSTRUCTION PLAN
(PHASE 4 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_16
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 16



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOUR (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- SLOPE ARROW

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED JANUARY 2, 2016.
2. EXISTING TOPOGRAPHY IN VICINITY OF SEDIMENTATION BASINS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
3. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
4. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
5. PROPOSED CONTOURS SHOWN IN CELLS 14 & 15 REPRESENT BASE GRADES.

NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA — JAMES R. DIFRANCESCO — Lic. No. 022560 — 08/31/2021 — PROFESSIONAL ENGINEER

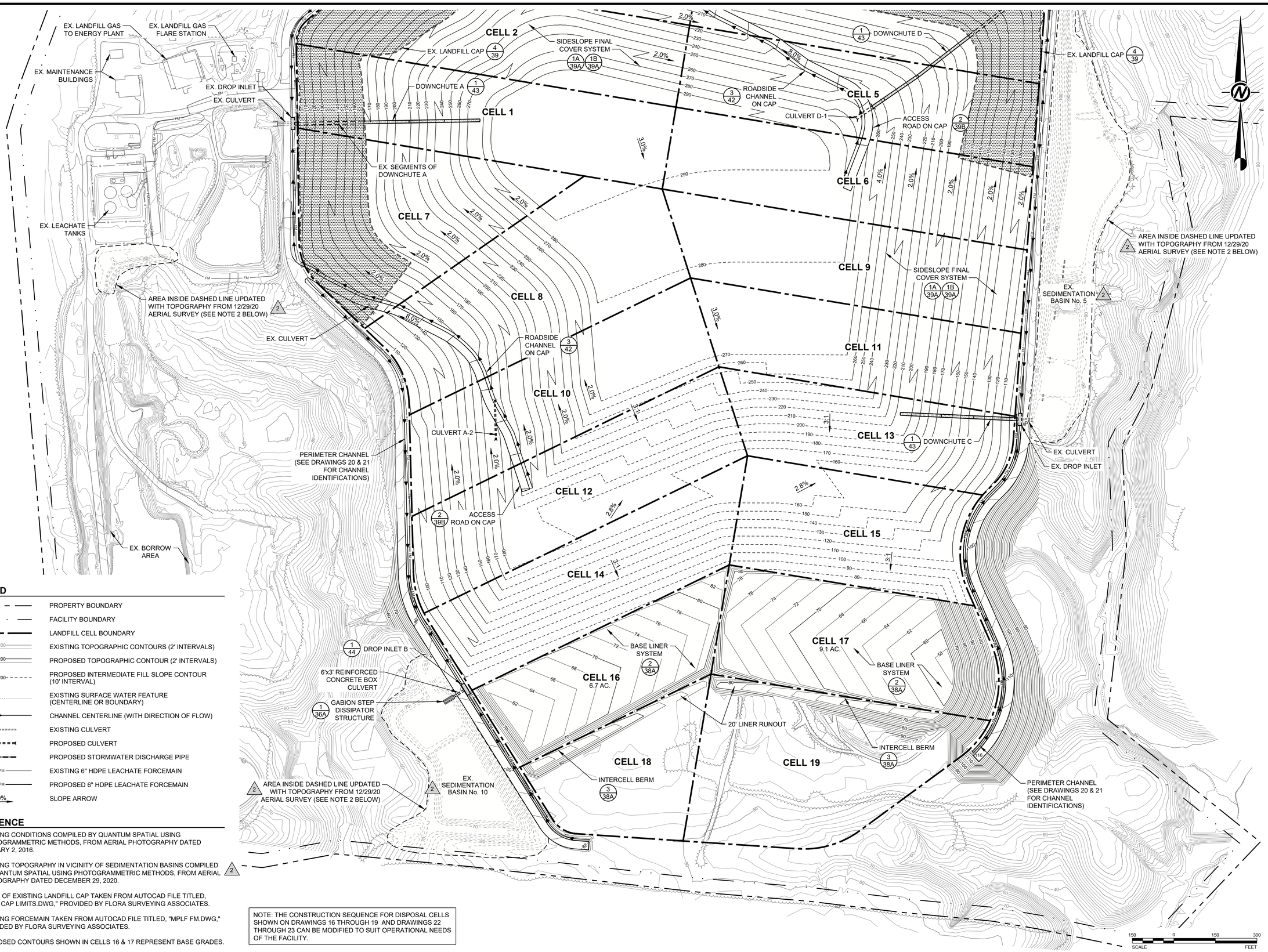
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 14-15
CONSTRUCTION PLAN
(PHASE 5 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_17
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 17

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_17.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOUR (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- SLOPE ARROW

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED JANUARY 2, 2016.
2. EXISTING TOPOGRAPHY IN VICINITY OF SEDIMENTATION BASINS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
3. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
4. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
5. PROPOSED CONTOURS SHOWN IN CELLS 16 & 17 REPRESENT BASE GRADES.

NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_18.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES		CADD	CHK	RVW
3	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

REVISION DESCRIPTION

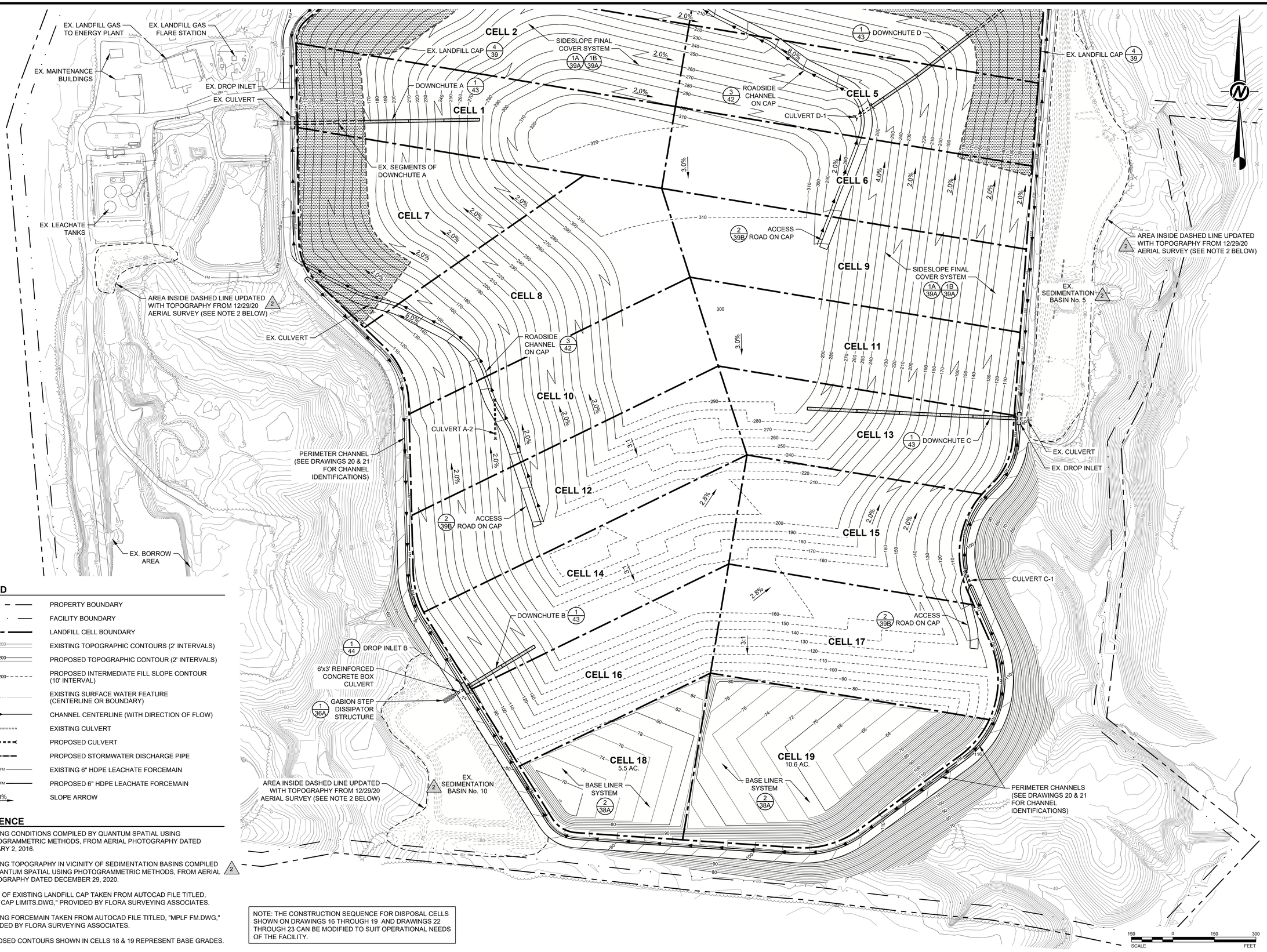
COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCESCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 16-17
CONSTRUCTION PLAN
(PHASE 6 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_18
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 18



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOUR (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- EXISTING 6" HDPE LEACHATE FORCEMAIN
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- SLOPE ARROW

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED JANUARY 2, 2016.
2. EXISTING TOPOGRAPHY IN VICINITY OF SEDIMENTATION BASINS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
3. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
4. EXISTING FORCEMAIN TAKEN FROM AUTOCAD FILE TITLED, "MPLF FM.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.
5. PROPOSED CONTOURS SHOWN IN CELLS 18 & 19 REPRESENT BASE GRADES.

NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_19.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

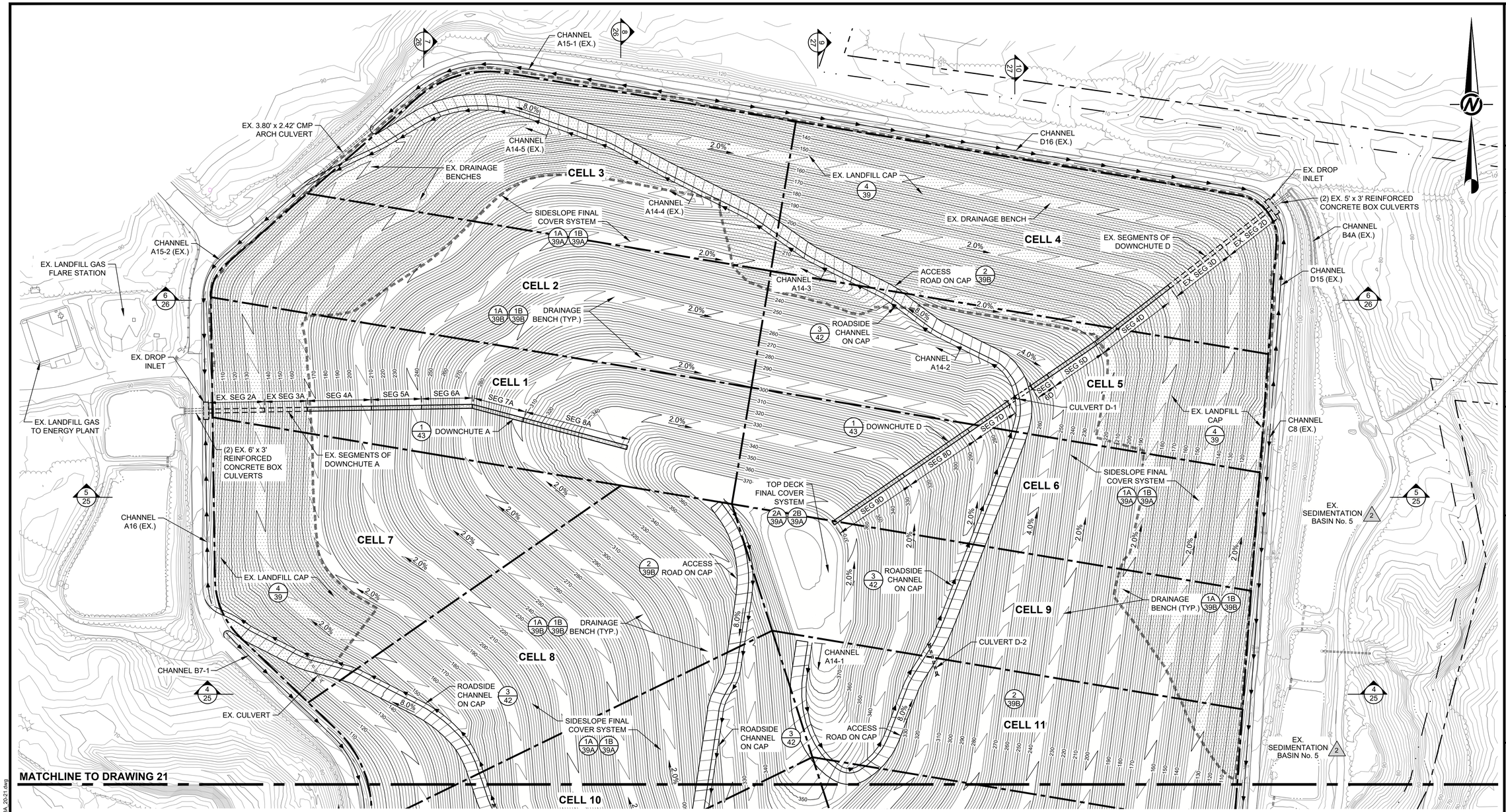
COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 18-19 CONSTRUCTION PLAN (PHASE 7 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_19
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 19



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- 2.0% SLOPE ARROW
- 4/25 CROSS SECTION LOCATION AND DRAWING REFERENCE

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. LIMITS OF EXISTING LANDFILL CAP TAKEN FROM AUTOCAD FILE TITLED, "MPLF CAP LIMITS.DWG," PROVIDED BY FLORA SURVEYING ASSOCIATES.

3. SEE DRAWING 42 FOR CHANNEL DETAILS AND DIMENSIONS.

120 0 120 240
SCALE FEET

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIPASQUALE
Lic. No. 022360
08/31/2021
PROFESSIONAL ENGINEER

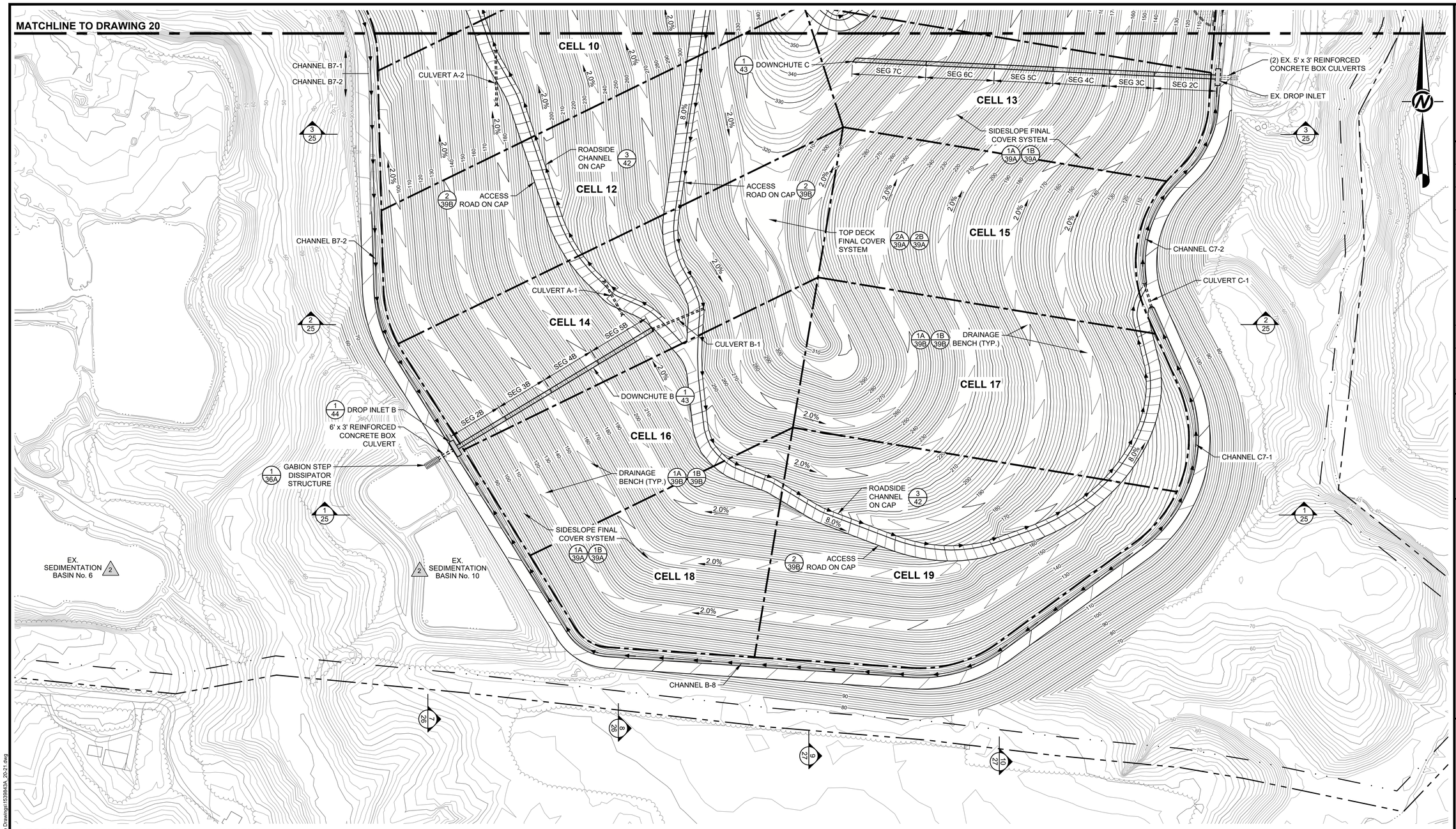
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
FINAL GRADING PLAN
AREA A (1 of 2)
(PHASE 8 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_20-21
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 20

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_20-21.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- 2.0% SLOPE ARROW
- 4/25 CROSS SECTION LOCATION AND DRAWING REFERENCE

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. SEE DRAWING 42 FOR CHANNEL DETAILS AND DIMENSIONS.

120 0 120 240
SCALE FEET

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIPASCUSCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

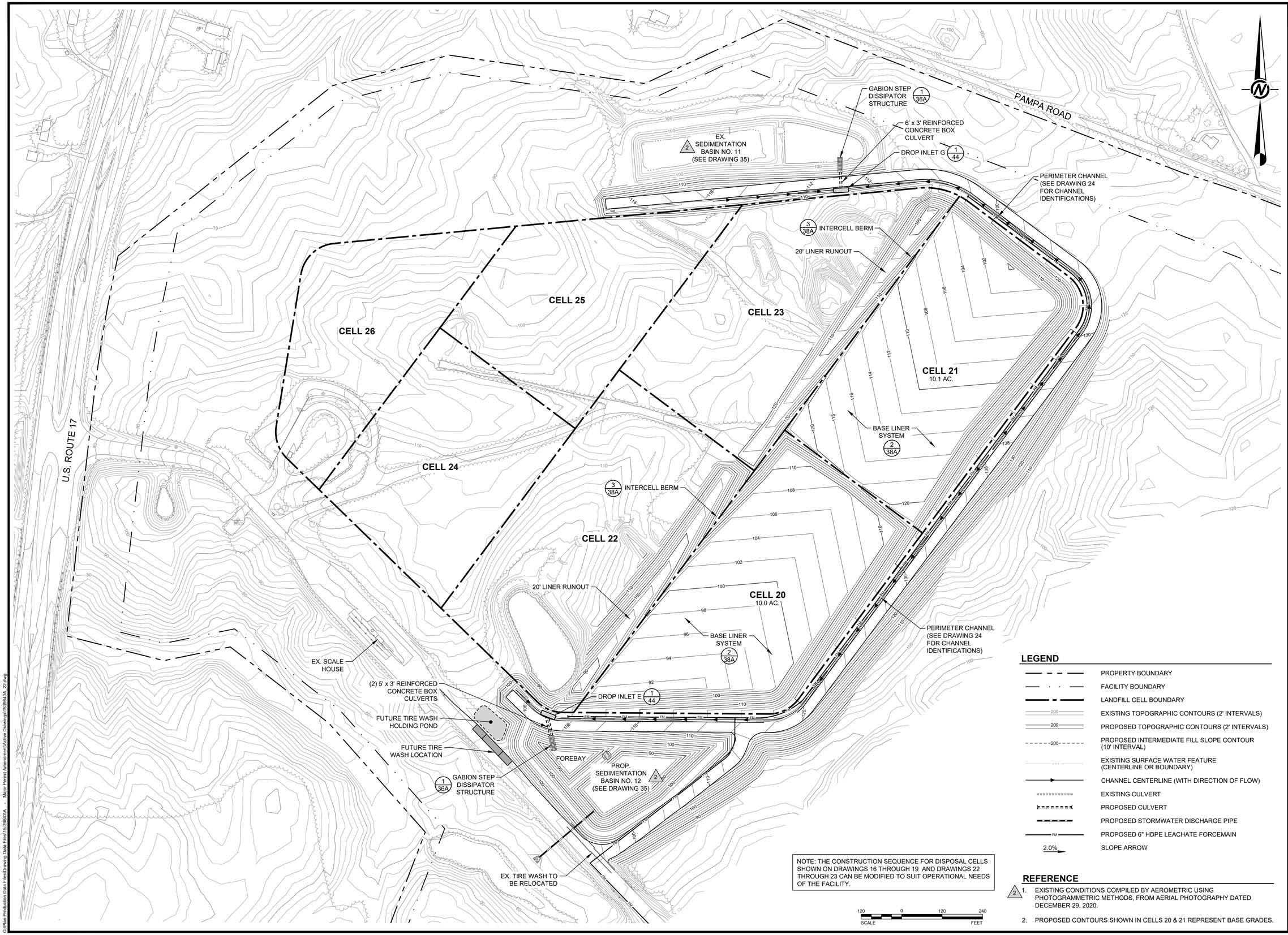
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
FINAL GRADING PLAN
AREA A (2 of 2)
(PHASE 8 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_20-21
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 21

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_20-21.dwg



NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- PROPOSED 6" HDPE LEACHATE FORCEMAIN
- 2.0% SLOPE ARROW

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY AEROMETRIC USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. PROPOSED CONTOURS SHOWN IN CELLS 20 & 21 REPRESENT BASE GRADES.

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 20-21
CONSTRUCTION PLAN

PROJECT No.		15-39843
FILE No.		1539843A_22
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 22

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_22.dwg

NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- FM — PROPOSED 6" HDPE LEACHATE FORCEMAIN
- 2.0% — SLOPE ARROW

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY AEROMETRIC USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. PROPOSED CONTOURS SHOWN IN CELLS 22 & 23 REPRESENT BASE GRADES.

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

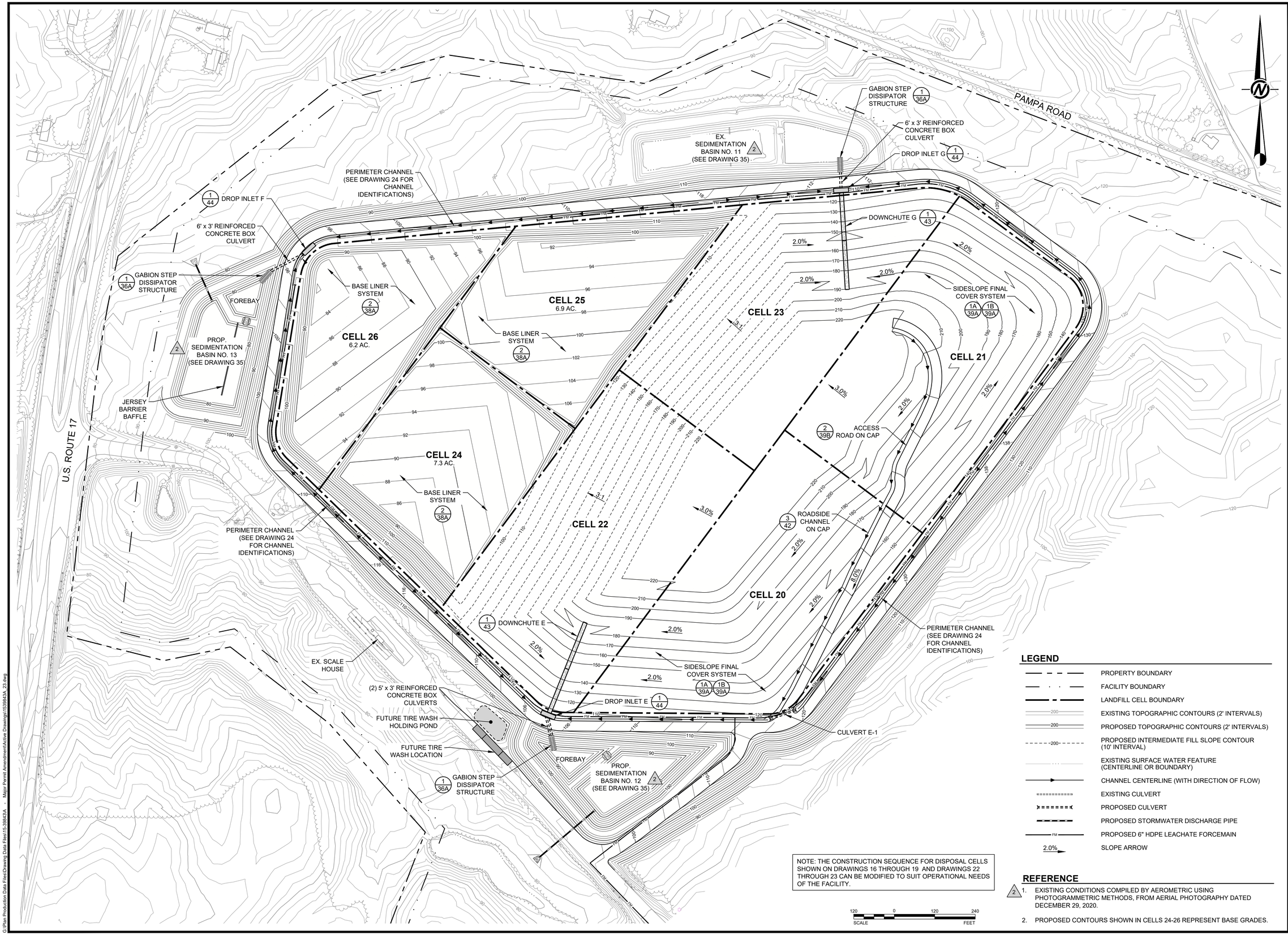
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 22-23
CONSTRUCTION PLAN
(PHASE 9 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_22A
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 22A

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_22A.dwg



NOTE: THE CONSTRUCTION SEQUENCE FOR DISPOSAL CELLS SHOWN ON DRAWINGS 16 THROUGH 19 AND DRAWINGS 22 THROUGH 23 CAN BE MODIFIED TO SUIT OPERATIONAL NEEDS OF THE FACILITY.

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- 200 EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- 200 PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- 200 PROPOSED INTERMEDIATE FILL SLOPE CONTOUR (10' INTERVAL)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- FM PROPOSED 6" HDPE LEACHATE FORCEMAIN
- 2.0% SLOPE ARROW

REFERENCE

2 1. EXISTING CONDITIONS COMPILED BY AEROMETRIC USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

2. PROPOSED CONTOURS SHOWN IN CELLS 24-26 REPRESENT BASE GRADES.

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
2	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 025260
08/31/2021
PROFESSIONAL ENGINEER

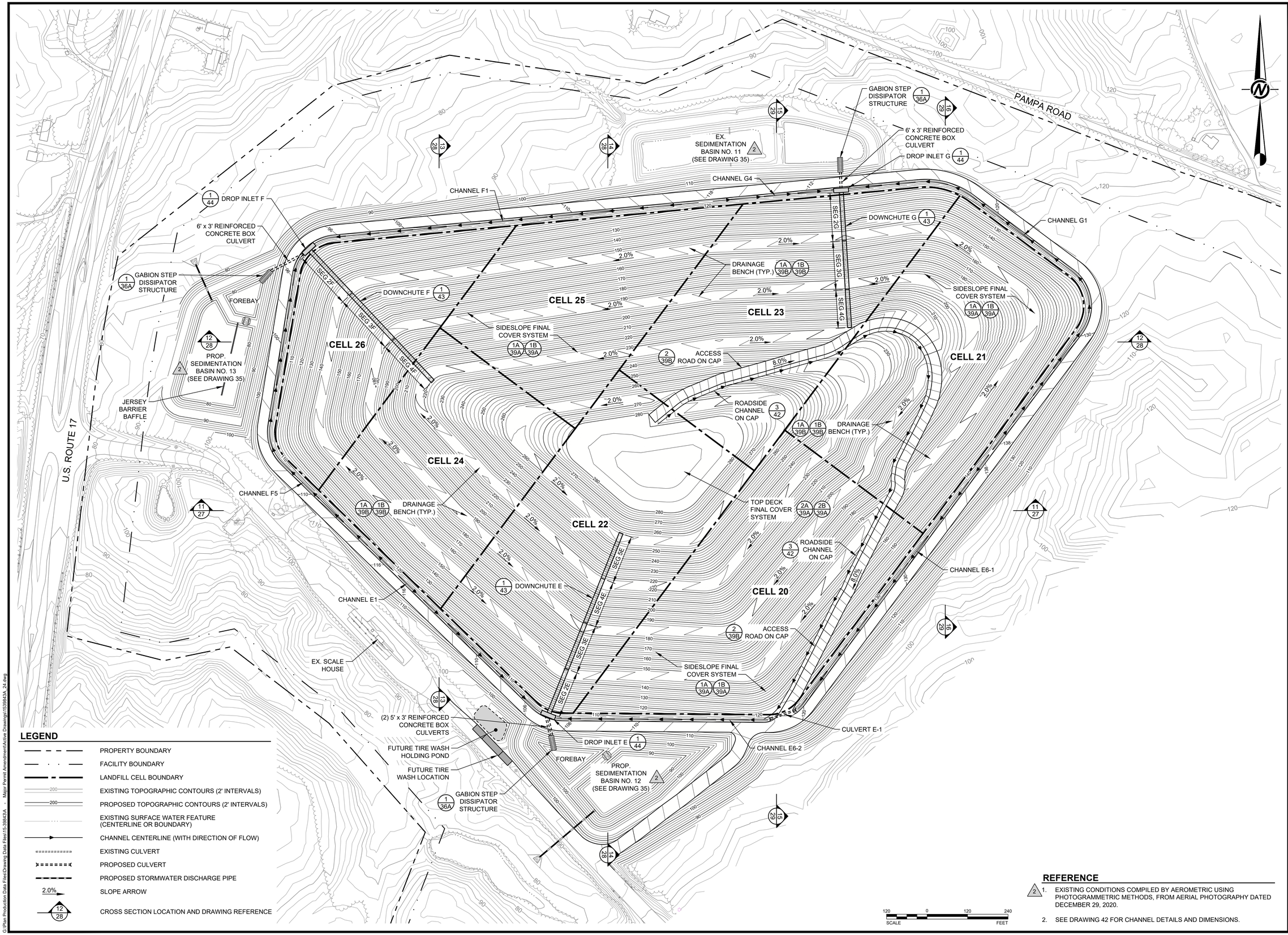
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CELLS 24-26
CONSTRUCTION PLAN
(PHASE 10 FILL PLAN)

PROJECT No.		15-39843
FILE No.		1539843A_23
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 23

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_23.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (CENTERLINE OR BOUNDARY)
- CHANNEL CENTERLINE (WITH DIRECTION OF FLOW)
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED STORMWATER DISCHARGE PIPE
- 2.0% SLOPE ARROW
- 12/28 CROSS SECTION LOCATION AND DRAWING REFERENCE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY AEROMETRIC USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.
2. SEE DRAWING 42 FOR CHANNEL DETAILS AND DIMENSIONS.

GOLDER
MEMBER OF WSP

REV	DATE	DES						
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD	JRD	RVW
0	04/07/17	JRD	REVISED FINAL COVER SYSTEM (ADDED 12" CONTROLLED SUBGRADE BENEATH LINER)	BPG	DPM	JRD	CHK	
			REVISION DESCRIPTION	CADD				

COMMONWEALTH OF VIRGINIA
JAMES R. DIPANCESCO
Lic. No. 022500
08/31/2021
PROFESSIONAL ENGINEER

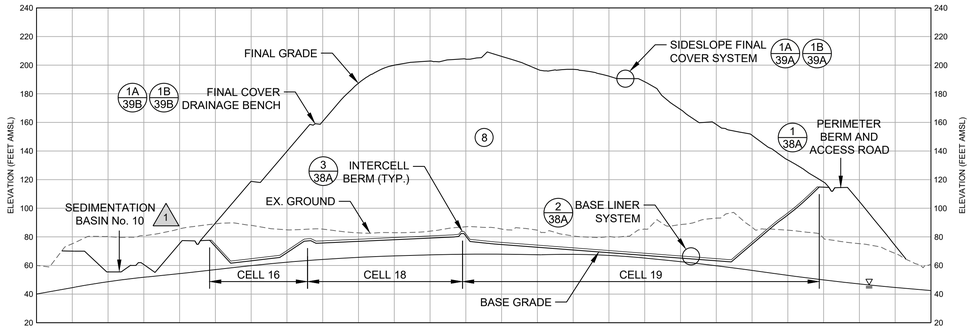
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
FINAL GRADING PLAN
AREA B
(PHASE 11 FILL PLAN)

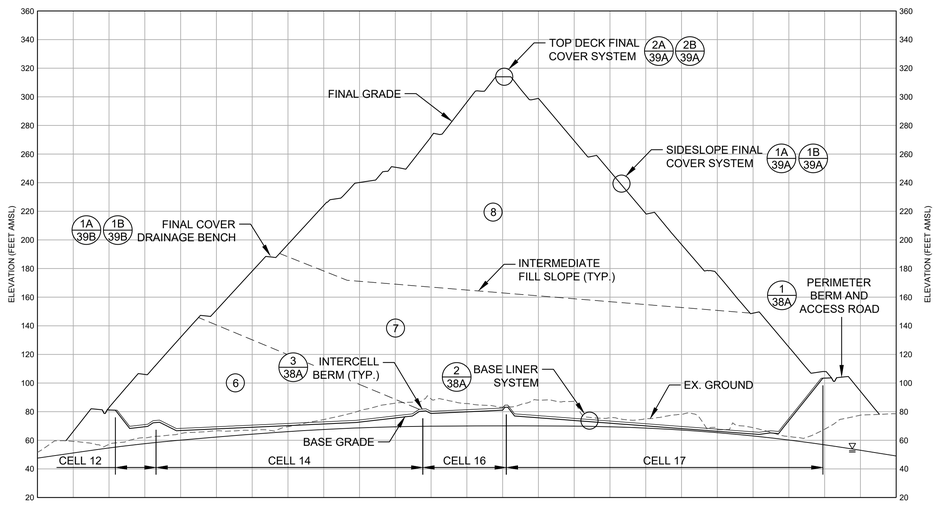
PROJECT No.		15-39843
FILE No.		1539843A_24
REV. 2	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 24

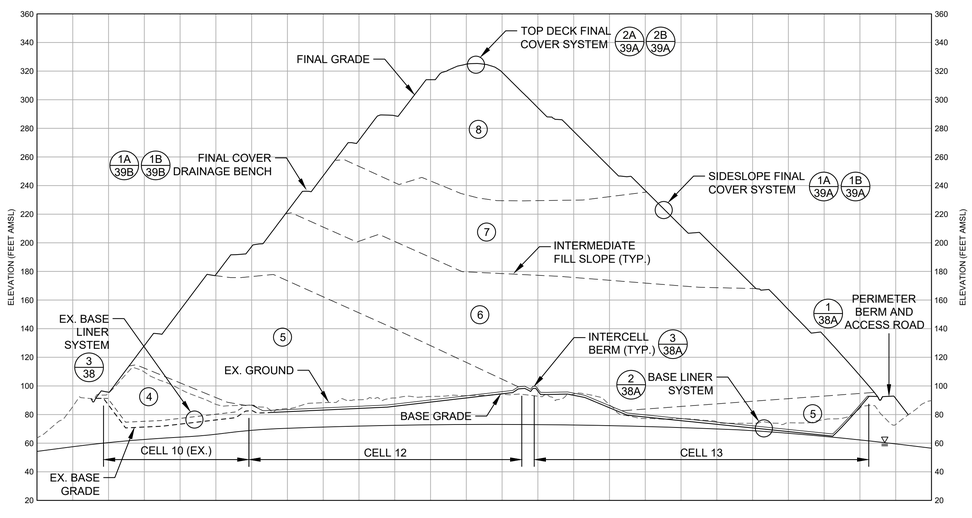
G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_24.dwg



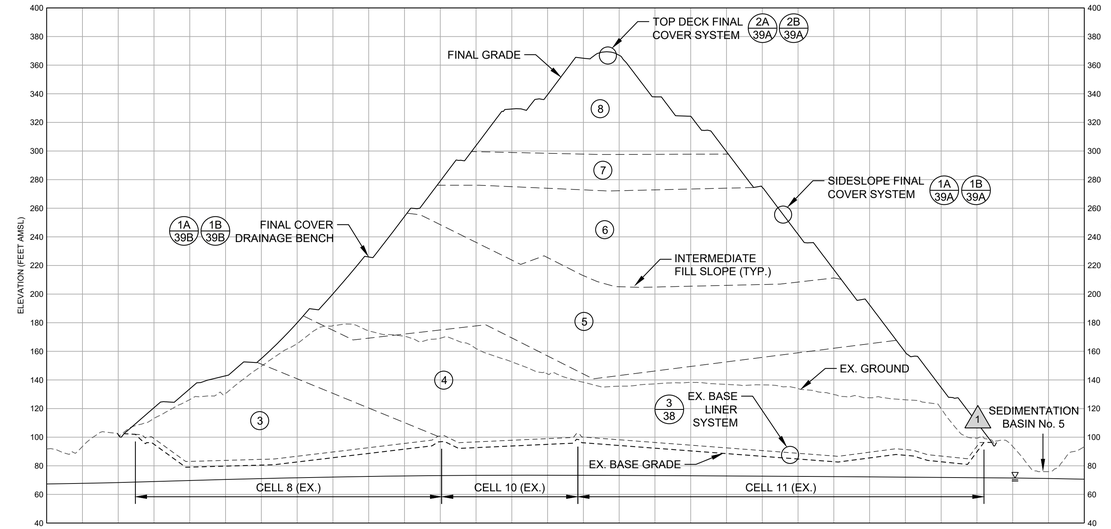
SECTION 1-1



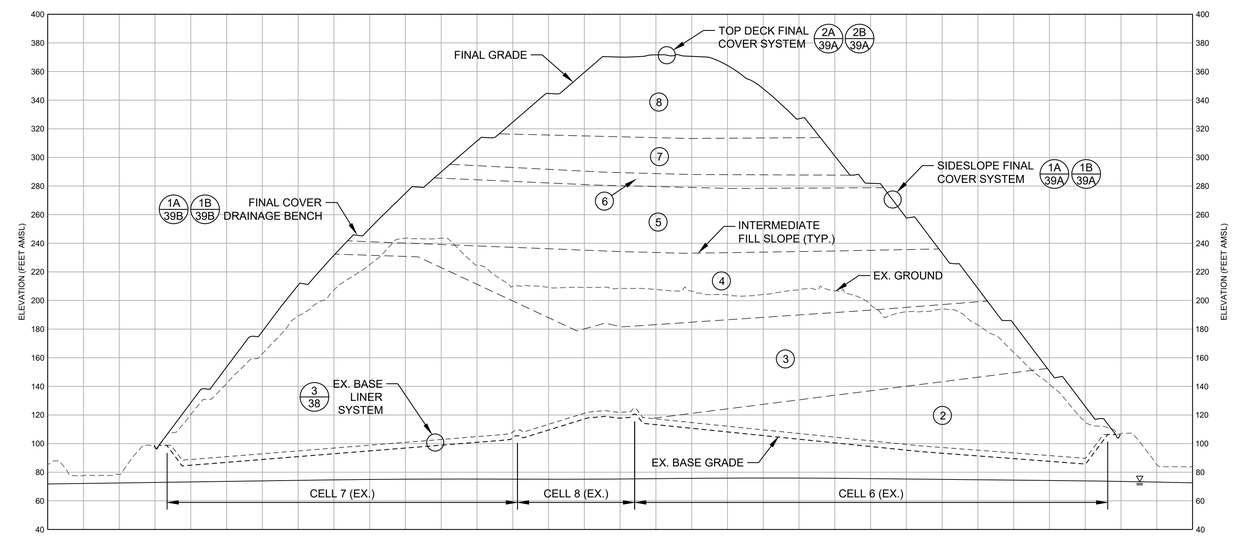
SECTION 2-2



SECTION 3-3



SECTION 4-4



SECTION 5-5

LEGEND

- EXISTING GROUND SURFACE
- GROUNDWATER SURFACE (MAY 6, 2016)
- EXISTING BASE LINER SYSTEM
- FUTURE BASE LINER SYSTEM
- (8) FILL PHASE (REFER TO DRAWINGS 13-24)
- INTERMEDIATE FILL SLOPE

REFERENCE

1. REFER TO DRAWINGS 7-9, 20-21 AND 24 FOR CROSS SECTION LOCATIONS.

VERTICAL SCALE 50 0 50 FEET

HORIZONTAL SCALE 200 0 200 FEET

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIPANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

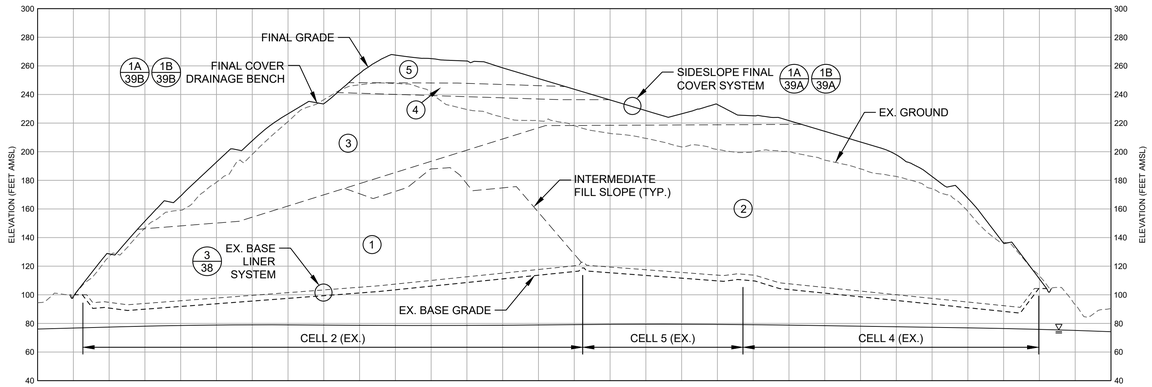
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CROSS SECTIONS
(1-1 THROUGH 5-5)

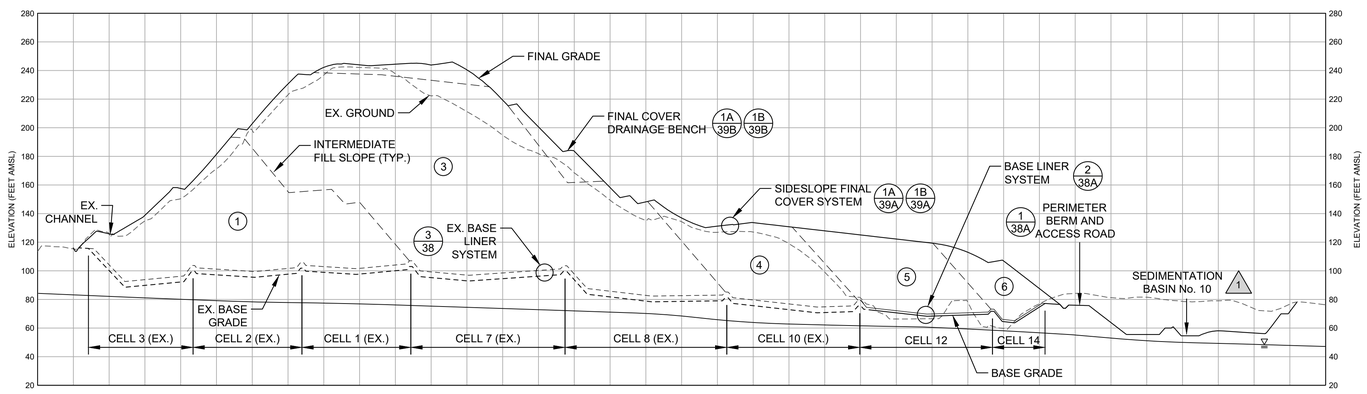
PROJECT No.		15-39843
FILE No.		1539843A_25-29
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 25

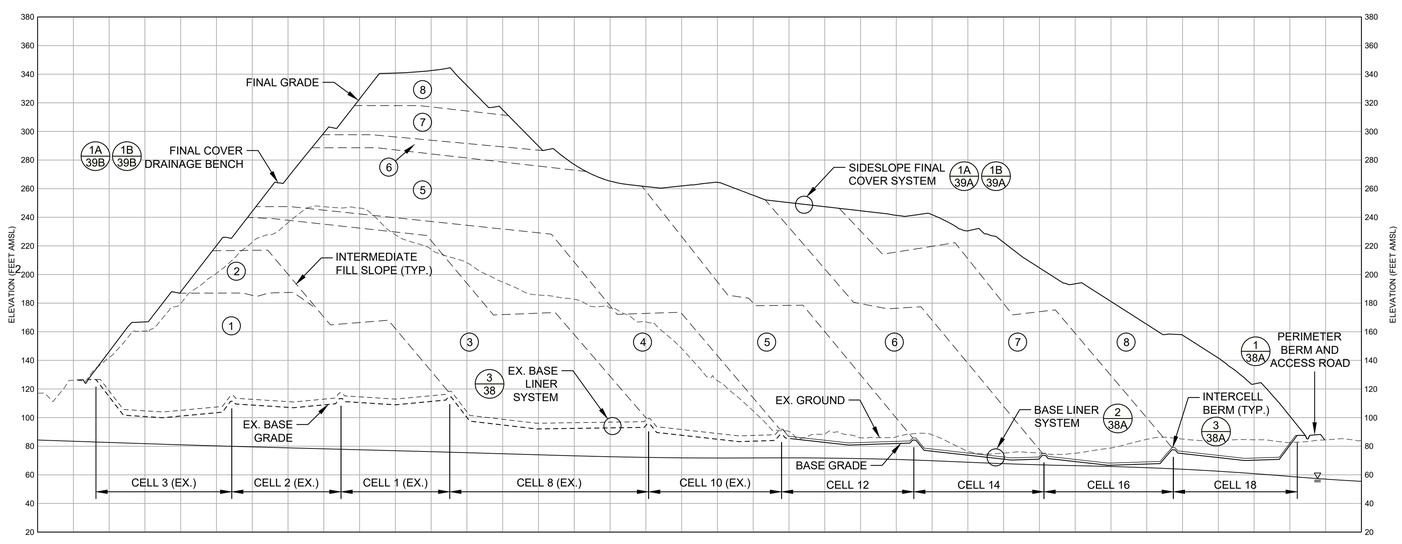
G:\Plan Production Data Files\Drawing Data Files\15-39843\A - Major Permit Amendment\Active Drawings\1539843A_25-29.dwg



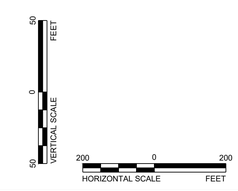
SECTION 6-6



SECTION 7-7



SECTION 8-8



LEGEND

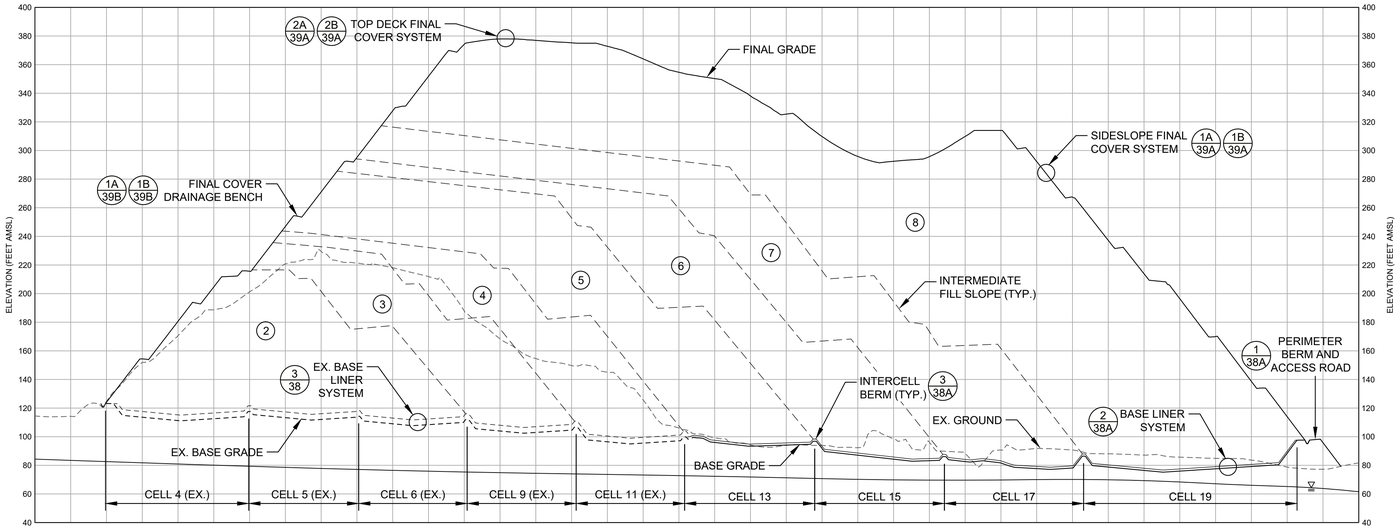
- EXISTING GROUND SURFACE
- GROUNDWATER SURFACE (MAY 6, 2016)
- EXISTING BASE LINER SYSTEM
- FUTURE BASE LINER SYSTEM
- (8) FILL PHASE (REFER TO DRAWINGS 13-24)
- INTERMEDIATE FILL SLOPE

REFERENCE

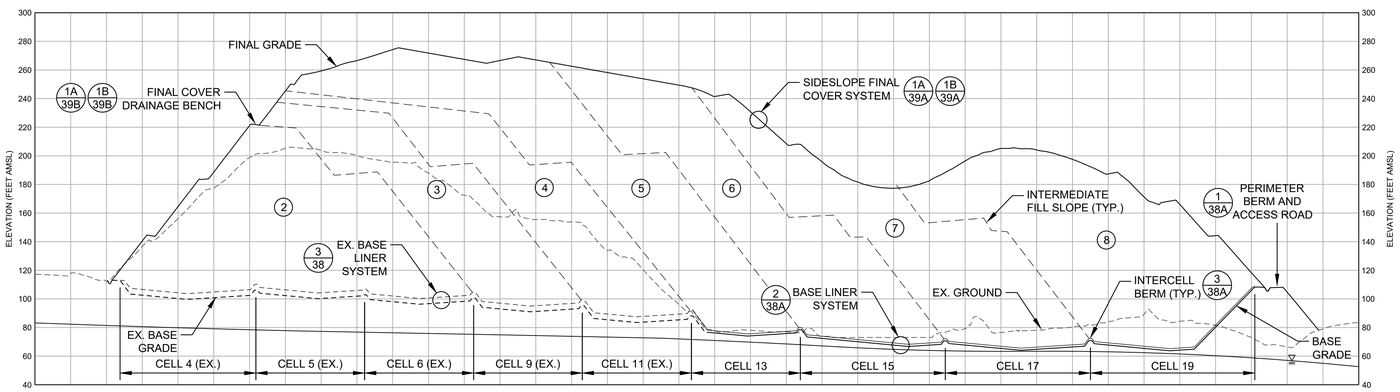
1. REFER TO DRAWINGS 7-9, 20-21 AND 24 FOR CROSS SECTION LOCATIONS.

GOLDER
MEMBER OF WSP

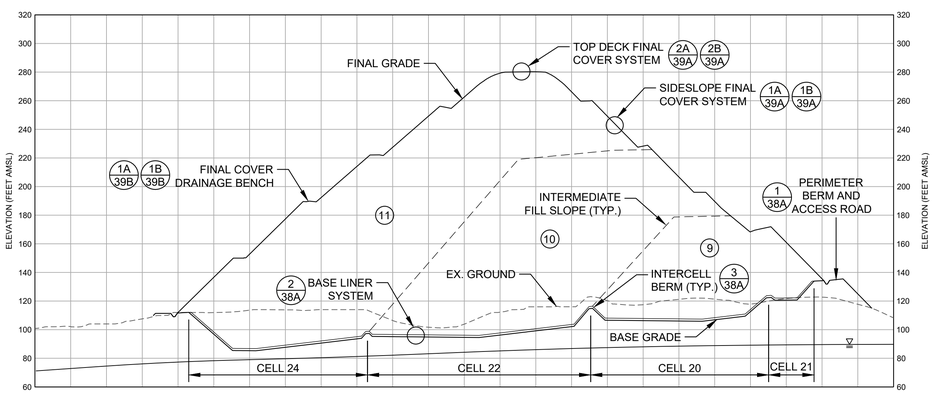
| REV | DATE | DES | | |



SECTION 9-9



SECTION 10-10



SECTION 11-11

LEGEND

- EXISTING GROUND SURFACE
- GROUNDWATER SURFACE (MAY 6, 2016)
- EXISTING BASE LINER SYSTEM
- FUTURE BASE LINER SYSTEM
- (8) FILL PHASE (REFER TO DRAWINGS 13-24)
- INTERMEDIATE FILL SLOPE

REFERENCE

1. REFER TO DRAWINGS 7-9, 20-21 AND 24 FOR CROSS SECTION LOCATIONS.

VERTICAL SCALE 50 0 50 FEET

HORIZONTAL SCALE 200 0 200 FEET

GOLDER MEMBER OF WSP

REV	DATE	DES	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD
1	08/31/21	JRD	REVISION DESCRIPTION	CADD	CHK	RVW

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

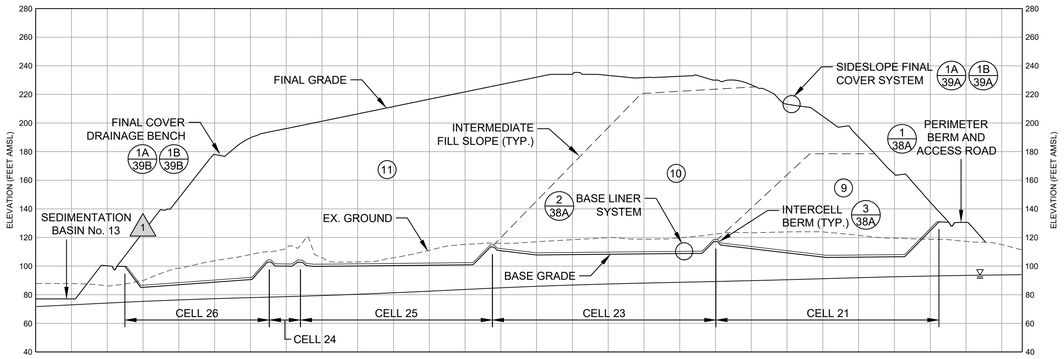
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CROSS SECTIONS
(9-9 THROUGH 11-11)

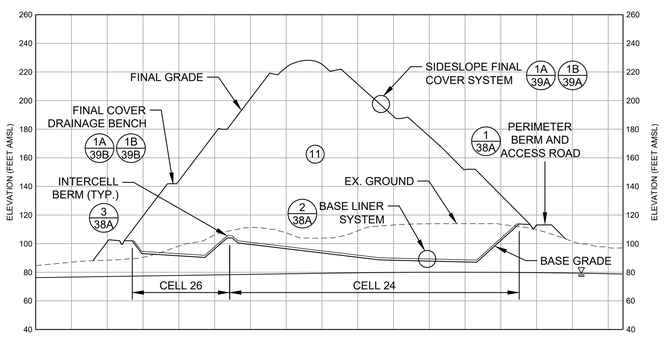
PROJECT No.		15-39843
FILE No.		1539843A_25-29
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 27

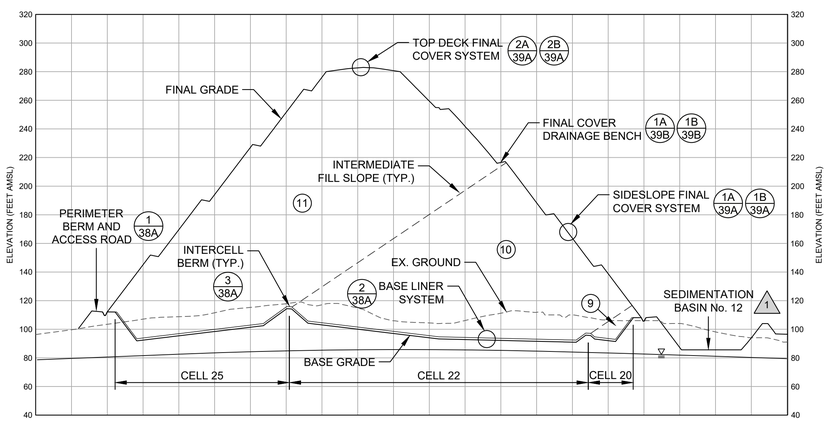
G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_25-29.dwg



SECTION 12-12



SECTION 13-13



SECTION 14-14

LEGEND

- EXISTING GROUND SURFACE
- GROUNDWATER SURFACE (MAY 6, 2016)
- EXISTING BASE LINER SYSTEM
- FUTURE BASE LINER SYSTEM
- (8) FILL PHASE (REFER TO DRAWINGS 13-24)
- INTERMEDIATE FILL SLOPE

REFERENCE

1. REFER TO DRAWINGS 7-9, 20-21 AND 24 FOR CROSS SECTION LOCATIONS.

VERTICAL SCALE 50 0 50 FEET

HORIZONTAL SCALE 200 0 200 FEET

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER JAMES R. DIFRANCESCO Lic. No. 022560 08/31/2021

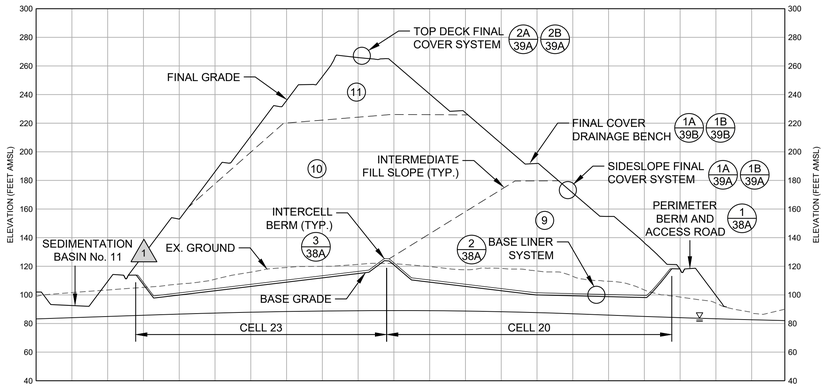
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CROSS SECTIONS
(12-12 THROUGH 14-14)

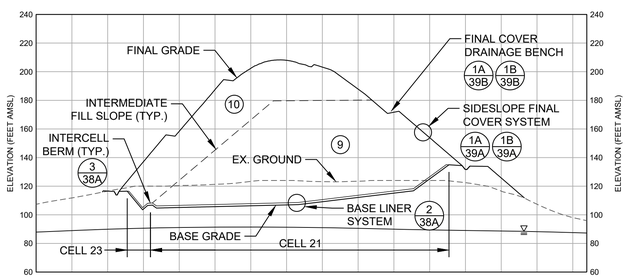
PROJECT No.		15-39843
FILE No.		1539843A_25-29
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 28

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_25-29.dwg



SECTION 15-15



SECTION 16-16

LEGEND

- EXISTING GROUND SURFACE
- GROUNDWATER SURFACE (MAY 6, 2016)
- EXISTING BASE LINER SYSTEM
- FUTURE BASE LINER SYSTEM
- (8) FILL PHASE (REFER TO DRAWINGS 13-24)
- INTERMEDIATE FILL SLOPE

REFERENCE

1. REFER TO DRAWINGS 7-9, 20-21 AND 24 FOR CROSS SECTION LOCATIONS.

VERTICAL SCALE 50 0 50 FEET

HORIZONTAL SCALE 200 0 200 FEET

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022560
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
CROSS SECTIONS
(15-15 THROUGH 16-16)

PROJECT No.		15-39843
FILE No.		1539843A_25-29
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 29

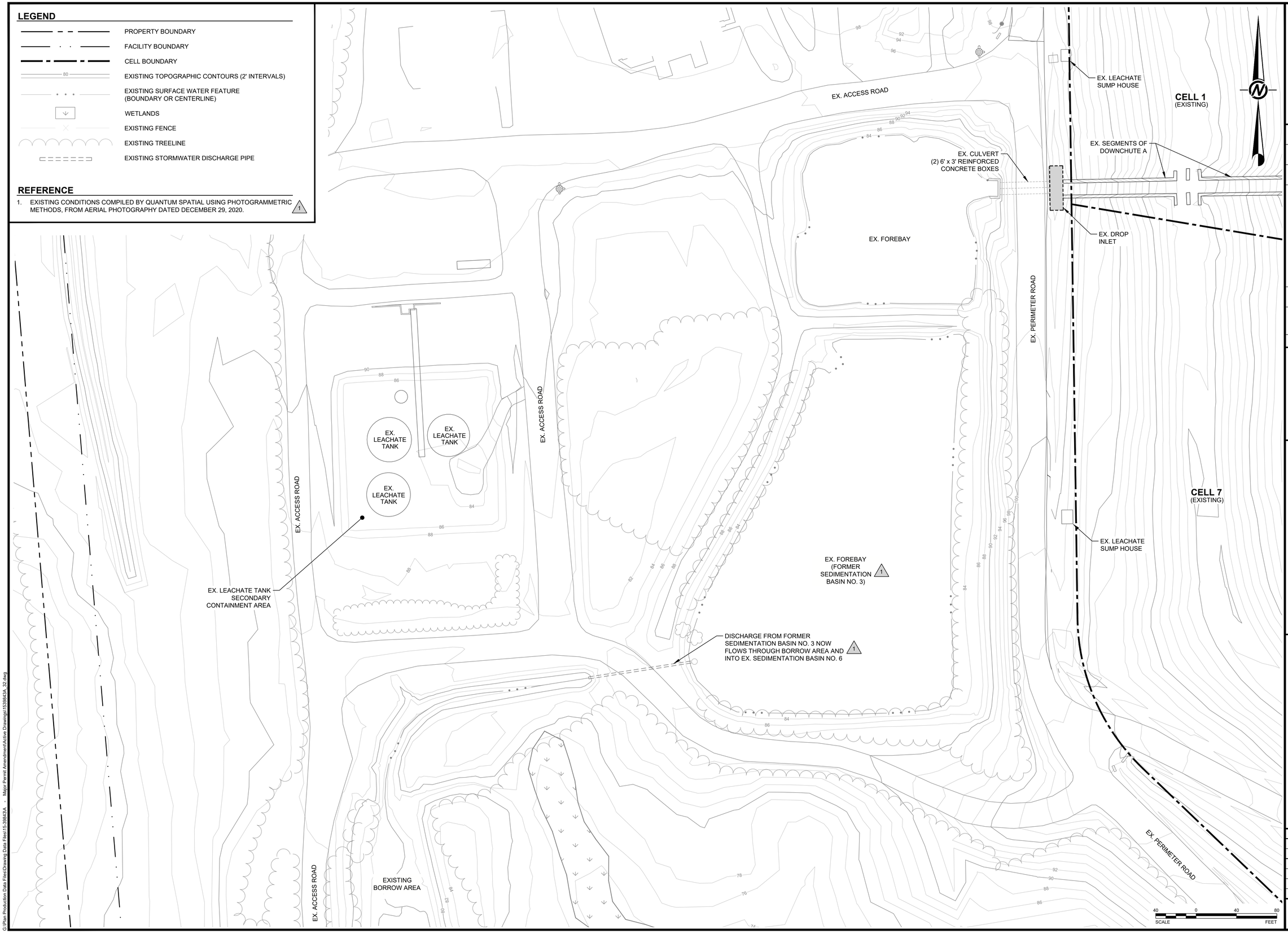
G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_25-29.dwg

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (BOUNDARY OR CENTERLINE)
- WETLANDS
- EXISTING FENCE
- EXISTING TREELINE
- EXISTING STORMWATER DISCHARGE PIPE

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020. (1)



G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_32.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	SIB	SDRM	JRD
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	CADD	CHK	RVW

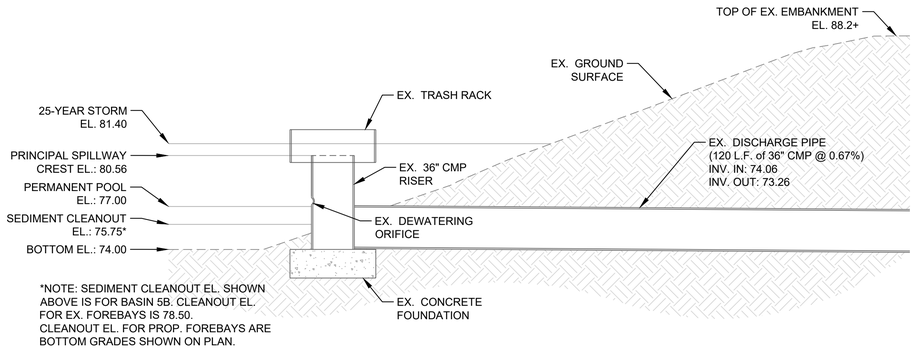
COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022260
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SEDIMENTATION BASIN No. 3 PLAN AND DETAILS

PROJECT No.		15-39843
FILE No.		1539843A_32
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 32



1 1/33 **BASIN 5 RISER STRUCTURE DETAIL**

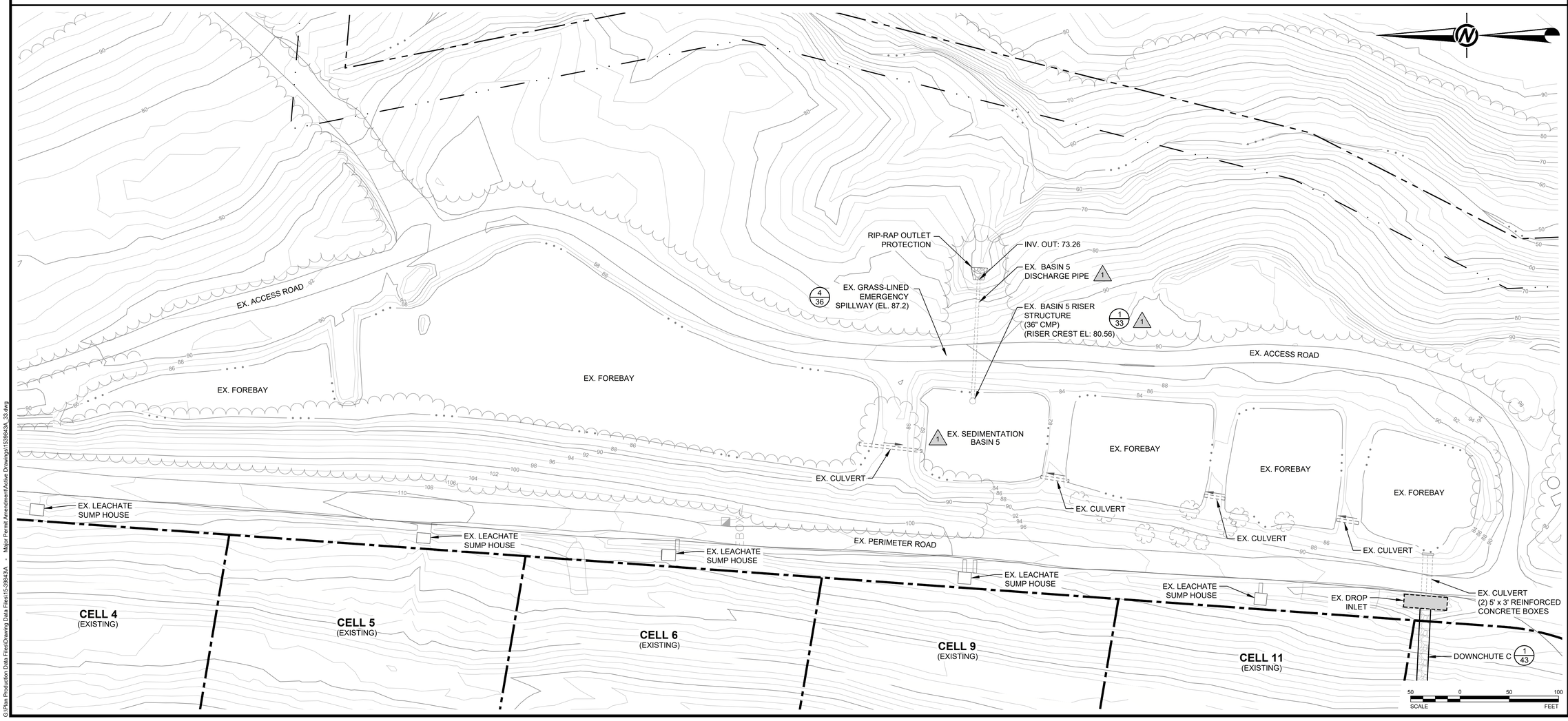
SCALE: 1" = 5'

REFERENCE

1 1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EXISTING SURFACE WATER FEATURE (BOUNDARY OR CENTERLINE)
- WETLANDS
- EXISTING FENCE
- EXISTING TREELINE
- EXISTING CULVERT / STORMWATER DISCHARGE PIPE
- EXISTING RIP RAP



GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SDRM	JRD

SIB CADD

COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER JAMES R. DIFRANCESCO Lic. No. 025260 08/31/2021

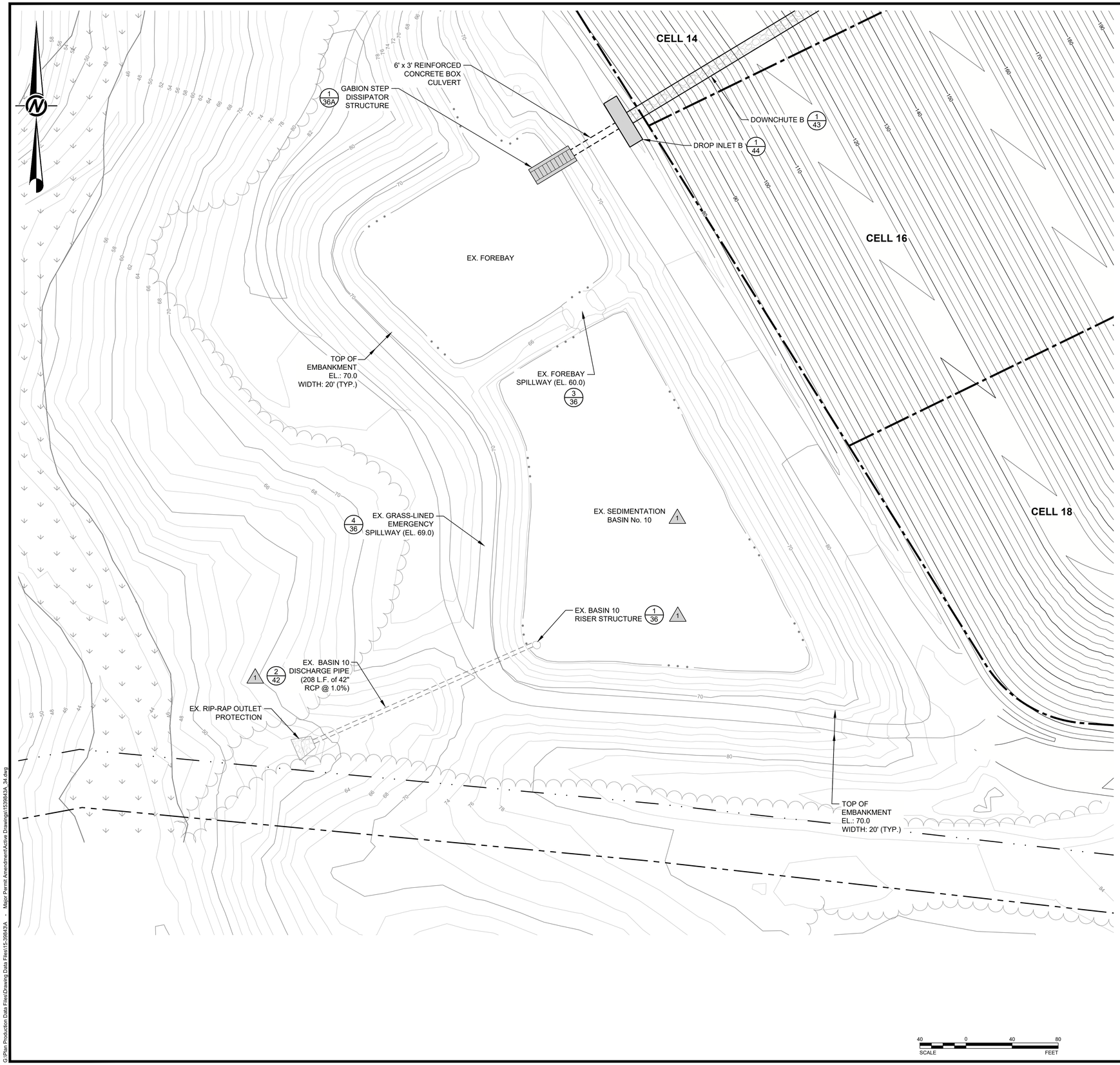
PROJECT: WASTE MANAGEMENT MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY PERMIT No. 572 GLOUCESTER COUNTY, VIRGINIA

TITLE: SEDIMENTATION BASIN No. 5 PLAN AND DETAILS

PROJECT No.		15-39843
FILE No.		1539843A_33
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 33

G:\Plan Production Data Files\Drawing Data Files\15-39843A — Major Permit Amendment\Active Drawings\1539843A_33.dwg



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- CELL BOUNDARY
- EXISTING TOPOGRAPHIC CONTOURS (2' INTERVALS)
- PROPOSED TOPOGRAPHIC CONTOURS (2' INTERVALS)
- EX. SURFACE WATER FEATURE (BOUNDARY OR CENTERLINE)
- WETLANDS
- EXISTING FENCE
- EXISTING TREELINE
- EXISTING CULVERT
- EXISTING RIP RAP

REFERENCE

1. EXISTING CONDITIONS COMPILED BY QUANTUM SPATIAL USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022260
08/31/2021
PROFESSIONAL ENGINEER

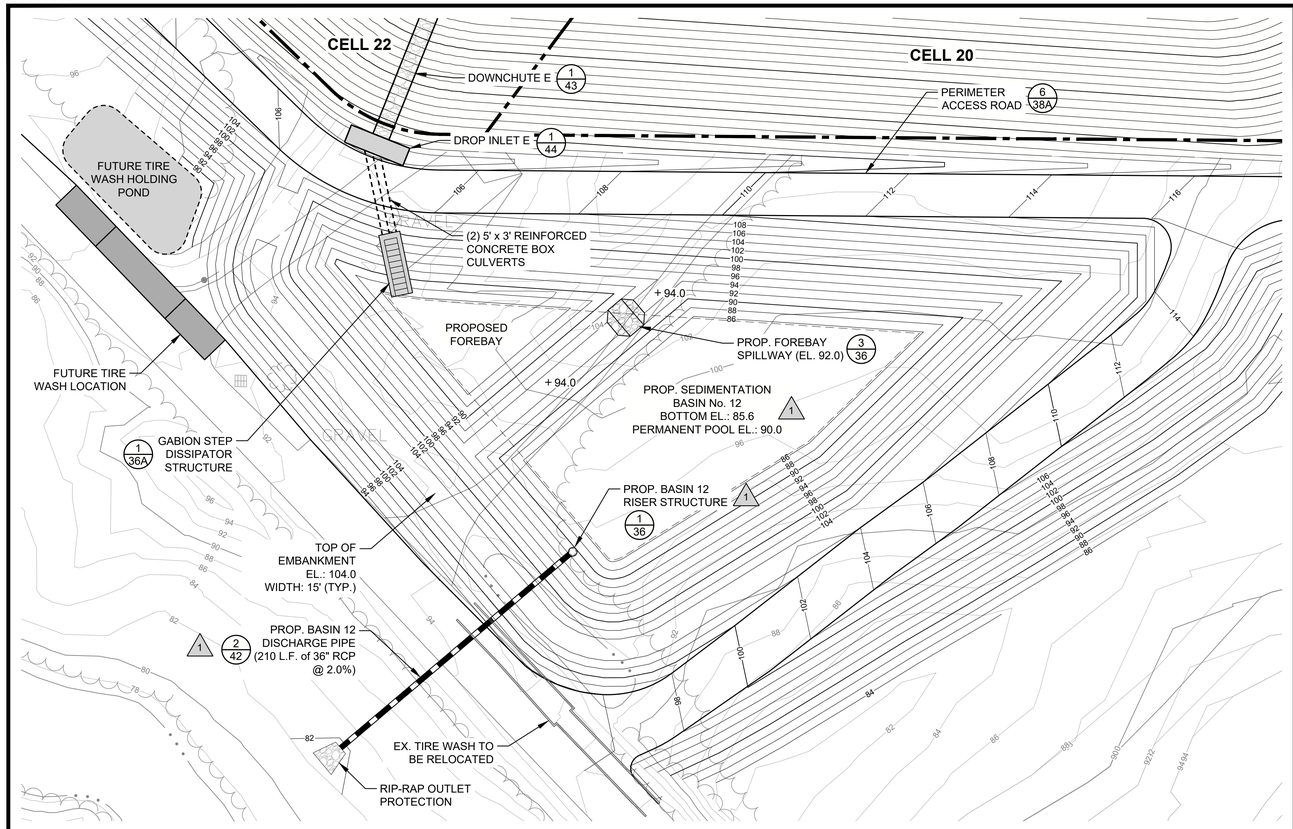
PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SEDIMENTATION BASIN
No. 10 PLAN AND
DETAILS

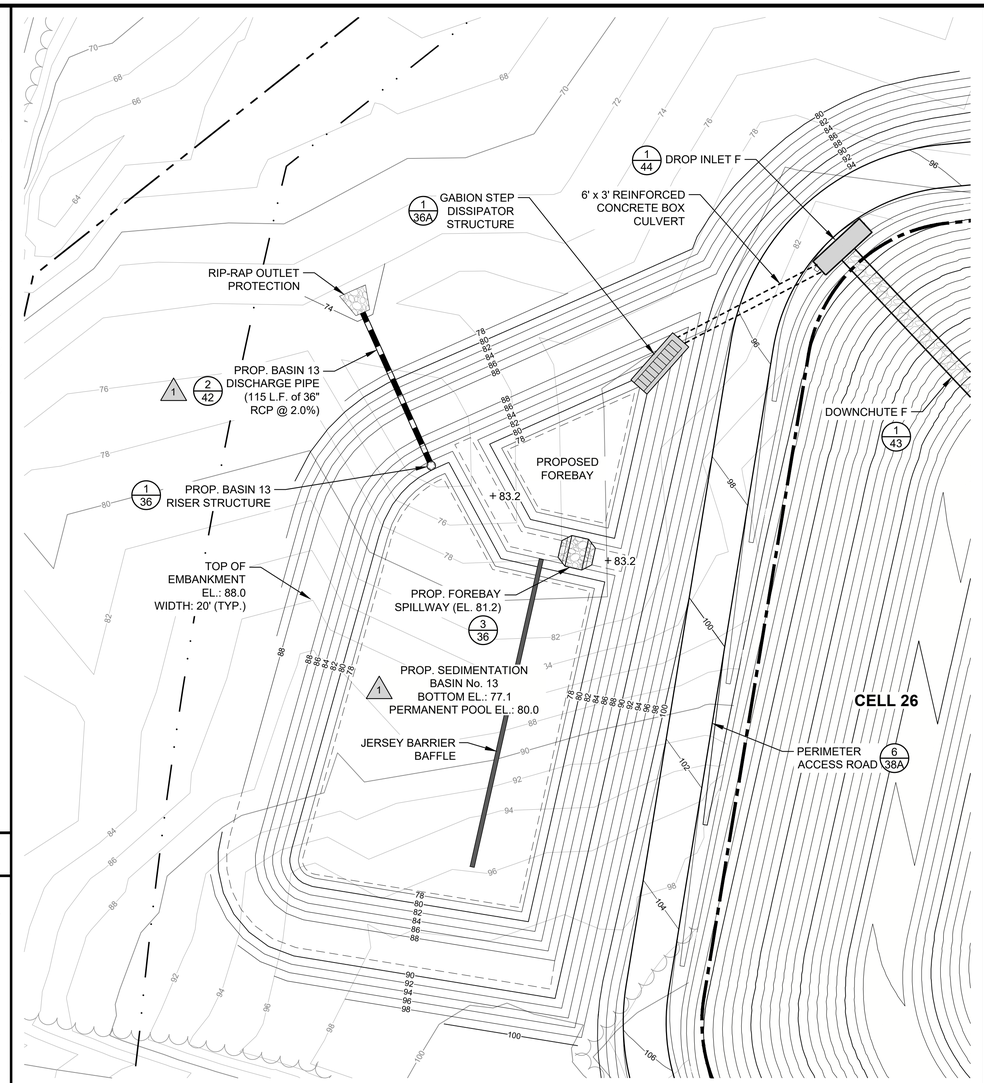
PROJECT No.		15-39843
FILE No.		1539843A_34
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 34

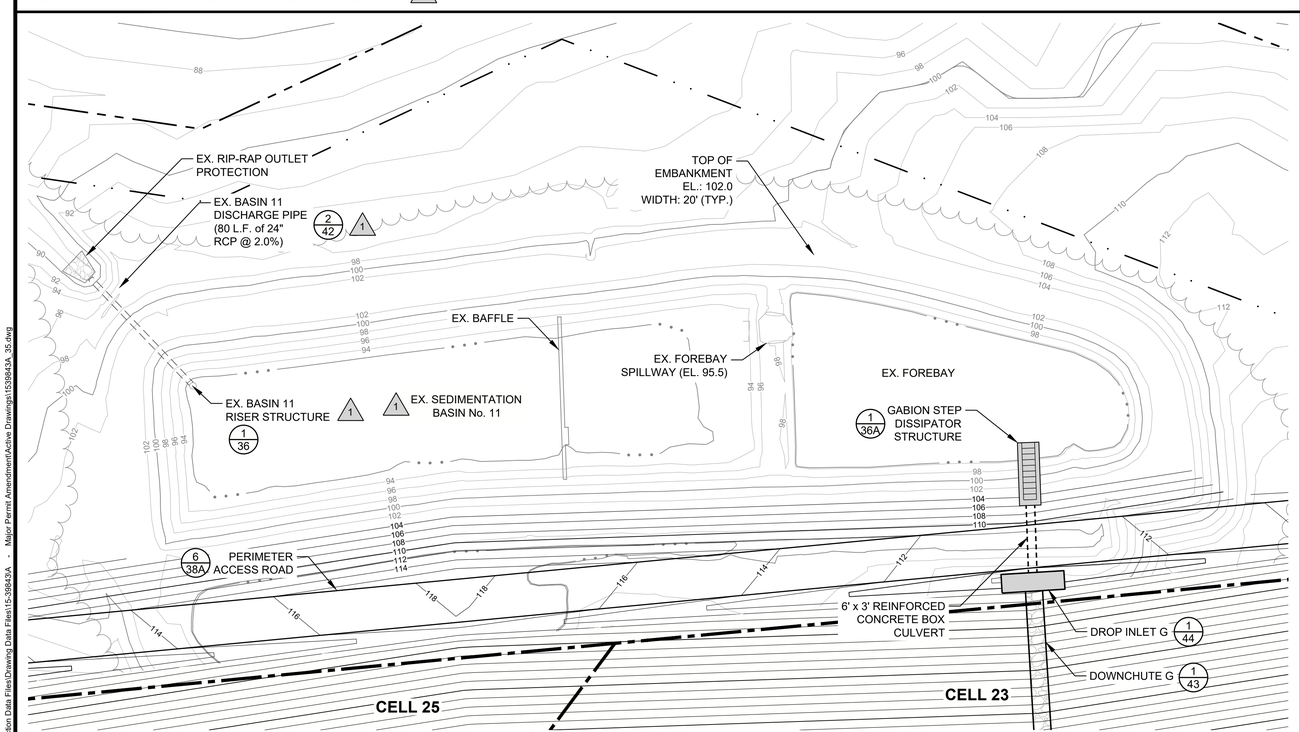
G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_34.dwg



SEDIMENTATION BASIN No. 12 (1)



SEDIMENTATION BASIN No. 13 (1)



SEDIMENTATION BASIN No. 11 (1)

LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- CELL BOUNDARY
- EX.ISTING TOPOGRAPHIC CONTOURS (2' INTERVAL)
- PROPOSED TOPOGRAPHIC CONTOUR (2' INTERVAL)
- PROPOSED ROAD
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STORMWATER DISCHARGE PIPE
- PROPOSED STORMWATER DISCHARGE PIPE
- EXISTING RIP RAP
- PROPOSED RIP RAP

SCALE 50 0 50 100 FEET

REFERENCE

(1) 1. EXISTING CONDITIONS COMPILED BY AEROMETRIC USING PHOTOGRAMMETRIC METHODS, FROM AERIAL PHOTOGRAPHY DATED DECEMBER 29, 2020.

GOLDER MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER JAMES R. DIFRANCESCO Lic. No. 022560 08/31/2021

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL
AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SEDIMENTATION BASINS
No. 11, 12 & 13 PLAN AND
DETAILS

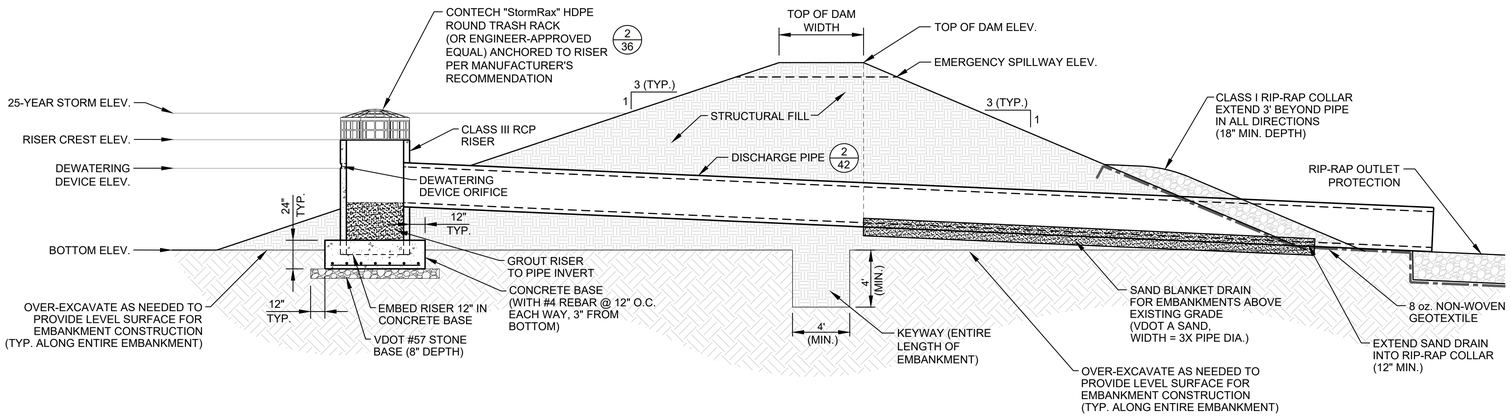
PROJECT No.		15-39843
FILE No.		1539843A_35
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 35

G:\Plan Production Data Files\Drawing Data Files\15-39843A - Major Permit Amendment\Active Drawings\1539843A_35.dwg

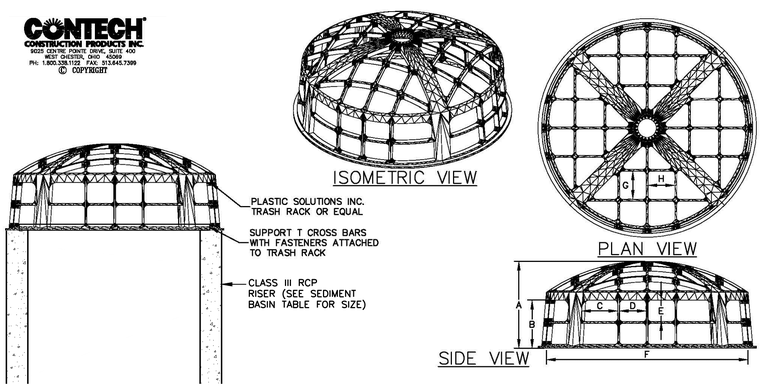
BASIN SCHEDULE																		
Basin ID	Drainage Area (ac)	Wet Storage Volume (cy)		Dry Storage Volume (cy)		Bottom Elev.	Riser Crest Elev.	Riser Dia. (in)	Dewatering Device Elev.	Dewatering Device Dia. (in)	25-yr Storm Elev.	Emergency Spillway Elev.	Top of Dam Elev.	Top of Dam Width (ft)	Discharge Pipe Length (ft)	Discharge Pipe Dia. (in.)	Discharge Pipe Inv. In	Discharge Pipe Inv. Out
		Req'd.	Provided	Req'd.	Provided													
5	99.82	6,688	16,777	6,688	6,688	74.0	82.9	36	77.0	6	85.70	87.2	88.2	15	120	36" CMP	76.00	73.26
10	29.99	3,593*	10,460*	3,593*	5,791	54.6	62.0	60	59.0	6	62.90	69.0	70.0	20	208	42" RCP	56.50	54.40
12	32.13	2,153	3,111	2,153	2,249	85.6	90.7	48	88.80	6	92.98	N/A	104.0	15	210	36" RCP	84.50	80.30
11	13.95	935	1,436	935	1,031	90.0	92.4	48	91.60	6	94.30	N/A	102.0	20	80	24" RCP	88.60	87.00
13	22.67	1,519	2,306	1,519	1,564	77.1	79.7	48	78.70	6	81.55	N/A	88.0	20	115	36" RCP	75.50	73.20

1



BASIN RISER STRUCTURE AND DISCHARGE PIPE DETAIL

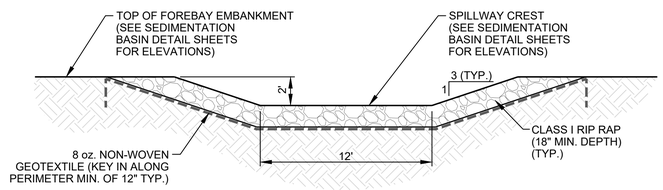
1/36 NOT TO SCALE



ROUND SERIES TRASH RACKS										
	RISER									
PART NO.	CONCRETE INSIDE DIA.	CMP OR HDPE NOMINAL DIA.	A	B	C	D	E	F	G	H
RS-48	48"ø	33"ø-42"ø	27 3/4"	17 3/4"	7"	8 1/2"	6 3/4"	54 1/4"	8 1/2"	9"
RS-60	60"ø	48"ø-54"ø	27 3/4"	17 3/4"	11 1/2"	8 1/2"	6 3/4"	67 1/2"	8 1/2"	9"

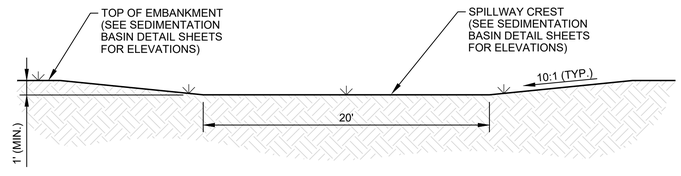
TRASH RACK DETAIL

2/36 NOT TO SCALE



TYPICAL FOREBAY SPILLWAY DETAIL

3/36 NOT TO SCALE



TYPICAL GRASS-LINED EMERGENCY SPILLWAY DETAIL

4/36 NOT TO SCALE

G:\Plan Production Data Files\Drawing Data Files\15-39843\A - Major Permit Amendment\Active Drawings\1539843A_36.dwg

GOLDER
MEMBER OF WSP

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
1	08/31/21	JRD	RENUMBERED SEDIMENTATION BASINS	SIB	SDRM	JRD

COMMONWEALTH OF VIRGINIA
JAMES R. DIFRANCESCO
Lic. No. 022360
08/31/2021
PROFESSIONAL ENGINEER

PROJECT
WASTE MANAGEMENT
MIDDLE PENINSULA LANDFILL AND RECYCLING FACILITY
PERMIT No. 572
GLOUCESTER COUNTY, VIRGINIA

TITLE
SEDIMENTATION BASIN DETAILS (1 of 2)

PROJECT No.		15-39843
FILE No.		1539843A_36
REV. 1	SCALE	AS SHOWN
DESIGN	JRD	09/23/16
CADD	BPG	09/23/16
CHECK	DPM	09/23/16
REVIEW	JRD	09/23/16

DRAWING 36